DRUG AND COSMETIC INDUSTRY

APRIL 1940

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The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer; Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass., U. S. A. Editorial and General Office, 101 West 31st St., New York, N. Y., U. S. A.

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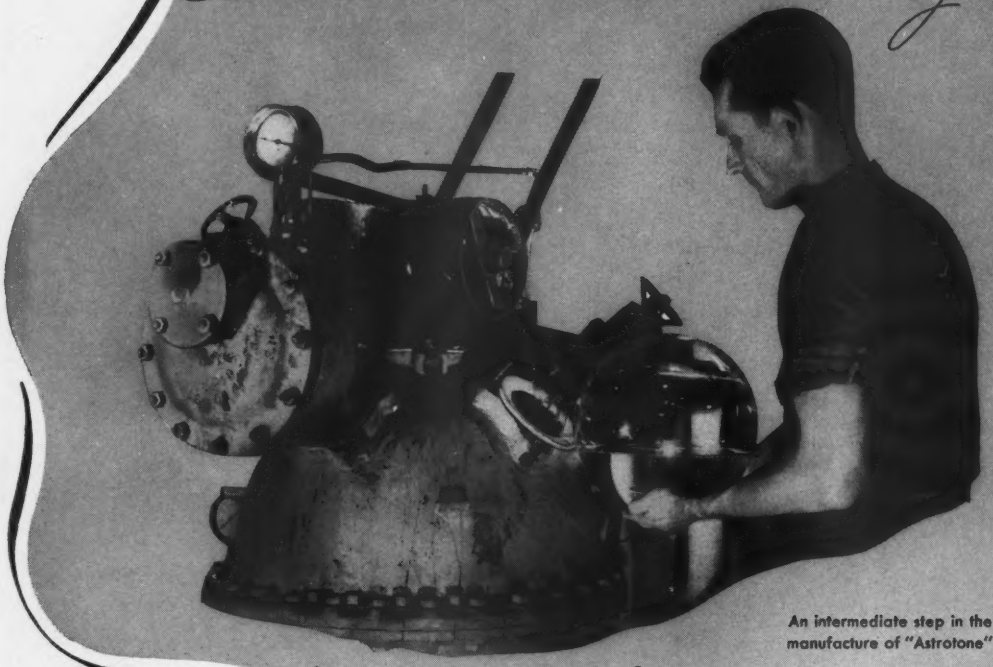

An intermediate step in the manufacture of "Astrotone"

to better synthetic aromatics

Du Pont, pioneers in the manufacture of organic chemicals, are producing a large variety of products required for the aromatic chemicals and allied industries. Their research and manufacturing facilities are constantly aiding in the creation of new products. Outstanding in Du Pont's complete line of aromatics are:

Alpine Violet
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Alcohol C-8, C-10, C-12, for fine perfumes

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Geraniols
Geranyl Acetate
Hydroxycitronellal
Hyacylene (Dimethyl acetal of Phenyl acetaldehyde)
Iso Amyl benzyl ether
Isoborneol
Methyl Anthranilate
Musks
Rhodiones and Methyl Rhodiones
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SMART, NEW

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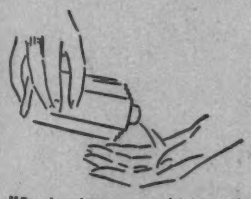
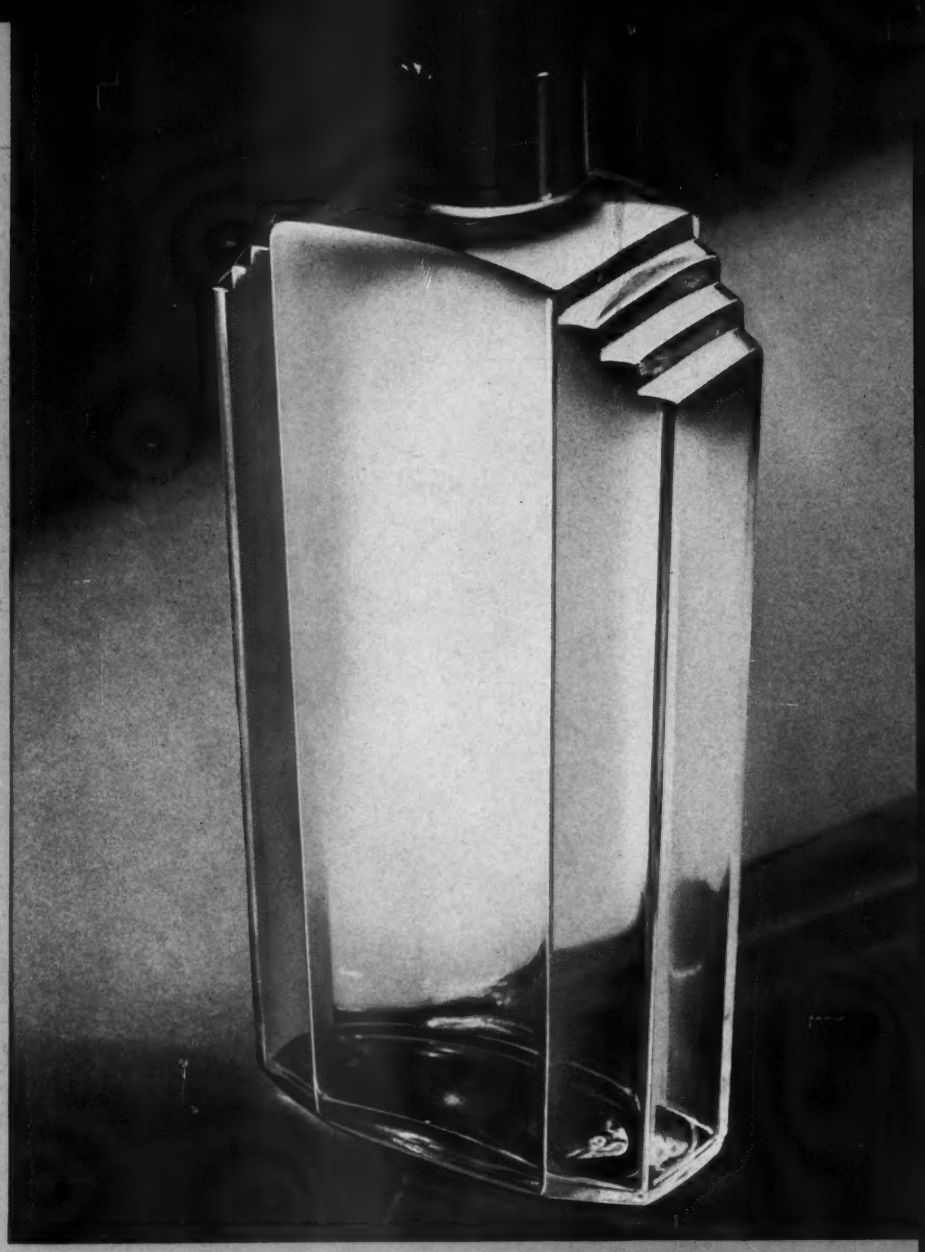
"For nail polish and polish removers."

"For toilet waters and perfumes."

"For hair tonics and shampoos."



"For hand creams and lotions."



LET US SEND A SAMPLE of the new Majestic Oval in Maryland Flint. You will find it has been gracefully styled to capture the feminine eye—to convey distinctive modern beauty and sales appeal to products designed for milady's boudoir.

Available in clear glass only, the Majestic Oval is carried in stock in ⅛, ¼, ½, 1, 2, 4, 6, 8, 16 and 32 oz. sizes. Black Bakelite caps furnished from stock if desired. ⅛, ¼, ½ oz. with shallow C. T. finish, G. C. A. 425—1 oz. with tall C. T. finished, G. C. A. 415—2, 4, 6, 8,16, 32 oz. with medium C. T. finish, G. C. A. 410. Also sprinkle-tops in 2, 4, 6 and 8 oz. sizes.

• • •

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315 FOURTH AVE., NEW YORK CITY

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for the DRUG and COSMETIC INDUSTRY

IF YOU would capture in any perfume or cosmetic the very flower and bouquet of that one delicate odor you seek, you know the indispensable factor is *pure alcohol.* Doubtless you also know that for almost a hundred years—since Pierre Brangier first brought Paris to California—the rarest products of the distillers' art have been fine Rossville Alcohols. The fine Rossville Alcohols —*The Spirit of the Nation*—are first choice of the leading manufacturers of fine perfumes, lotions and pharmaceuticals.

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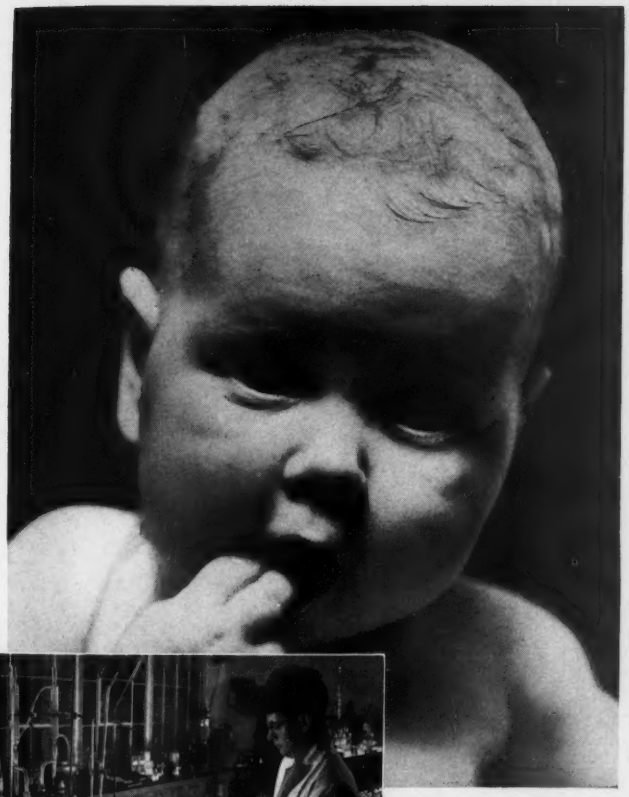
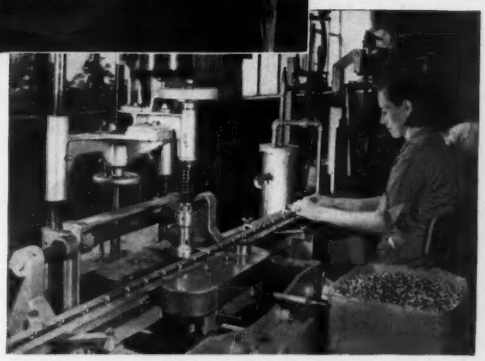


Allied's Research

means More Sales for You!

"You can't kid my mother!" More than ever before, women are wise to the merits of various brands of cosmetics and toiletries. They judge them not alone on what the advertising says—but chiefly on how the product performs. To increase sales, you must improve the performance!

Here in Allied's famous laboratory, constant research is carried on—to keep performance at its peak. Here consumers' needs and preferences are met and anticipated—so your brand will satisfy, and step ahead in sales!



Back of every product made by Allied stands 53 years of knowing how—and service on which you can depend. Long lines of newest automatic machinery, and a large staff of skilled workers insure flawless merchandise and deliveries on time!

More consumer satisfaction in their products, more sales and more repeats, have been obtained by leading cosmetic houses which have changed to Allied. Why not find out what Allied can do for your brand? Just phone, wire or write—TODAY!

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YOU CAN SAVE MONEY WITH CYANAMID'S ISO-BEESWAX, TOO

Both laboratory and actual production tests indicate that creams made with Cyanamid's ISO-BEESWAX not only have greater stability, better appearance and finer texture — but that these qualities can be obtained at lower cost when ISO-BEESWAX is used instead of Natural Beeswax.

Chief reasons for this improvement and economy are:

1. **ISO-BEESWAX is made entirely from South American and domestic raw materials — independent of foreign sources of supply.**
2. **ISO-BEESWAX is specially made for modern soft cleansing creams — it is a chemically controlled emulsifying agent.**
3. **ISO-BEESWAX is lower in cost than Natural Beeswax.**
4. **ISO-BEESWAX is more resistant to rancidity than Natural Beeswax.**
5. **ISO-BEESWAX is proven by five years of usage.**

ISO-BEESWAX is recommended for use in soft cleansing creams and should not be used in the heavier type cold creams unless a soft cream is desired. Write for samples of ISO-BEESWAX and further information on its use.

AMERICAN CYANAMID & CHEMICAL CORPORATION
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It's Modern to be OLD-FASHIONED
SWING INTO THE VOGUE with an OLD-FASHIONED PERFUME LINE
Modernized, but glorified, nevertheless, all the fashions of yesteryear are in the vogue again. And so are the fragrances of grandmother's day. To help you plan your old-fashioned line for today's moderne, MM&R has an exceptional diversity of perfume oils for Bath and Hand Soaps, Perfumes, Toilet Waters, Powders and Creams. And for masculine moderns, too... old-fashioned odors for shaving bowl specialties, after-shave talcs, lotions, etc. MM&R perfuming experts invite your inquiries
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Red Rose
Arabia
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No. 108
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THE *Safe* WAY TO *Save* MONEY

If you are alarmed by the wide and rapid change in the cost of the tubes you are using, here is the way out. Cut your costs with Alcoa Aluminum Tubes and avoid this speculation. Enjoy, in addition, their advantages of lightness, strength, and nontoxicity.

Never mind what ingredients your product contains. If plain Aluminum is unsuitable because of alkaline or acid ingredients, a coated Alcoa Aluminum Tube will fill the bill.

Tubes with special interior coatings are now being used successfully for tooth pastes, shaving creams, ointments, antiseptics and many other products. The ingredients do not affect the coatings and the coatings do not affect the product.

Our laboratory, which works exclusively on tube packing problems, can tell you what type of coating, if any, is needed for your product. Get these facts and full data on the low cost of Alcoa Aluminum Tubes. Write ALUMINUM COMPANY OF AMERICA, 1913 Gulf Building, Pittsburgh, Pennsylvania.

PACK *Safely* IN PURE

ALCOA ALUMINUM TUBES

CAPS

by

VICTOR

MOULDING DIVISION

VICTOR METAL PRODUCTS CORPORATION

200 DIAMOND STREET BROOKLYN • NEW YORK

CAPS BY VICTOR

KING DESIGN

ALL G. C. A. SIZES

The color in which this cap is shown on other side of page is

VICTOR BLUE 26A

Prompt deliveries on black caps from large stocks.

ACE DESIGN

ALL POPULAR SIZES

The color in which this cap is shown on other side of page is

VICTOR BLUE 28

Requests for samples and prices will receive prompt attention.

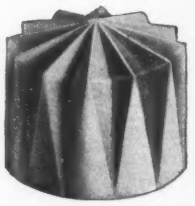
BALL CAP

10-425 – 18-410

The color in which this cap is shown on other side of page is

VICTOR GREEN 5A

This cap will appear colored in the May issue.



DESIGN No. 70

8-425 – 10-425 – 20-410

The color in which this cap is shown on other side of page is

VICTOR GREEN 23

Submit your design problems to Victor.

DESIGN No. 50

8-425 – 10-425

The color in which this cap is shown on other side of page is

VICTOR MAROON 11A

This cap will appear colored in the June issue.

TASSEL CAP

8-425 – 10-425

The color in which this cap is shown on other side of page is

VICTOR GREEN 4A

This cap will appear colored in the May issue.

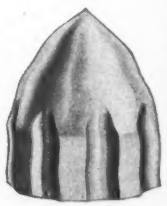
FLAME CAP

8-425 – 10-425

The color in which this cap is shown on other side of page is

VICTOR RED 24

Technical skill developed thru moulding experience assures a satisfactory closure.



DESIGN No. 60

15–425

The color in which this cap is shown on other side of page is

VICTOR RED 2

This cap will appear colored in the June issue.

The color shades referred to above and many others are shown by 10 m/m Ace design caps mounted on a stock color card. This card will be promptly mailed upon request.

MOULDING DIVISION

VICTOR METAL PRODUCTS CORPORATION

200 DIAMOND STREET **BROOKLYN • NEW YORK**

Exchange BRAND

Citric Acid

U·S·P·

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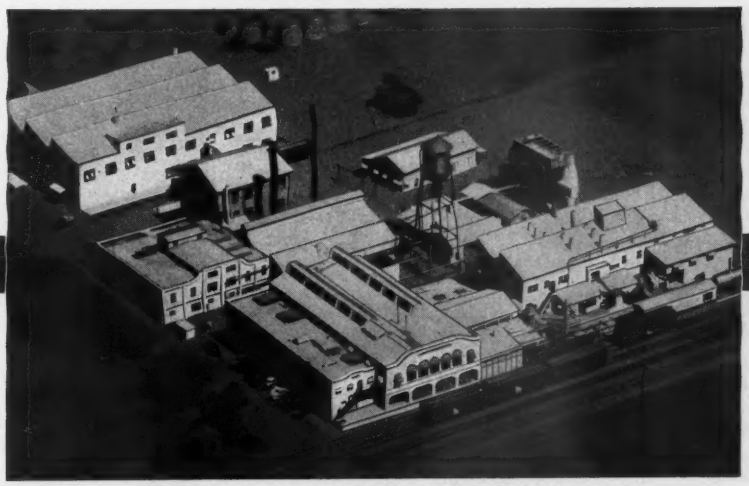
BACKED BY THE SUNKIST GROUP OF 14,000 CITRUS GROWERS



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CALIFORNIA FRUIT GROWERS EXCHANGE, PRODUCTS DEPARTMENT

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Butoben (n-Butyl Parahydroxybenzoate Merck) is the new antiputrefactive and antifermentive agent developed in the Merck Research Laboratories after an extensive search for an effective preservative for various preparations. Butoben was found to be the most effective ester of the parahydroxybenzoic acid series for preventing the growth of nonpathogenic bacteria and molds.

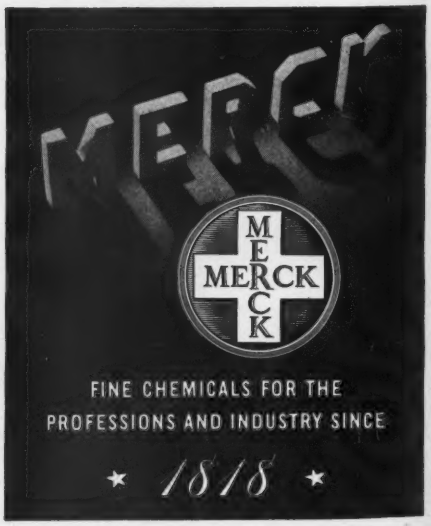
The outstanding advantage of Butoben for this purpose is its efficiency in acid and neutral products as well as in moderately alkaline media. It is also more economical to use because of the small quantity required (2/100 of 1%) i.e., *only 1 ounce is required to preserve 35 gallons of a preparation.*

Butoben is an excellent, useful and desirable preservative for gum solutions used for hair wave setting, and for various types of liquid preparations, including face and hand lotions, cosmetic creams, medicinal elixirs, tonics, certain eye lotions and emulsions.

Butoben, while an excellent preservative for the aqueous phase of cosmetics, does *not* prevent rancidity of oils and fats, as this is not caused by micro-organisms, but by hydrolysis and subsequent oxidation, and for which purpose an anti-oxidant is required.

As many cosmetic and medicinal preparations are composed of several ingredients, some of which may be incompatible with certain preservatives, we suggest that you consult the Merck Chemical Service Department regarding your manufacturing probblems and requirements.

Samples of Butoben will be supplied to manufacturers on request.



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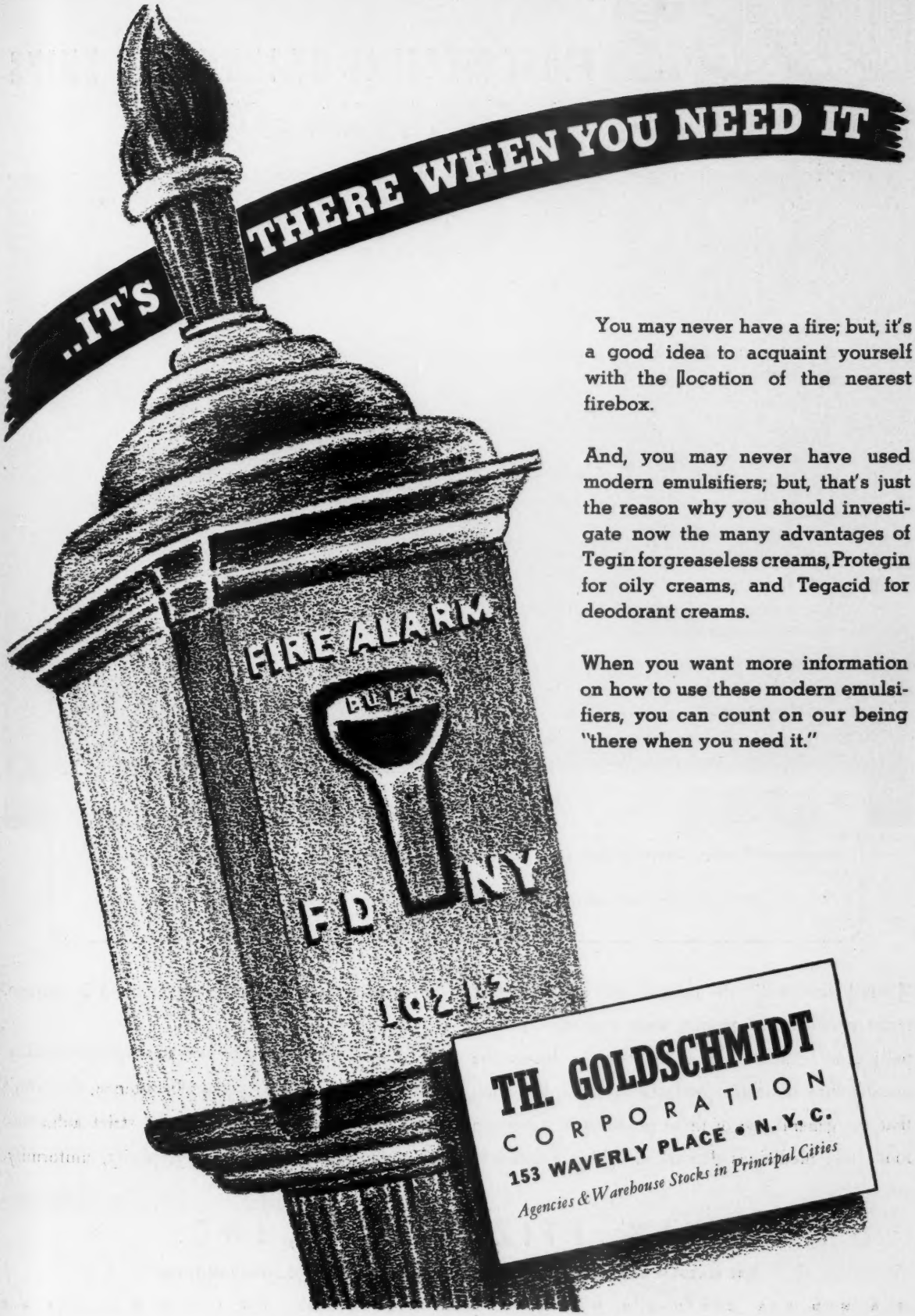

You may never have a fire; but, it's a good idea to acquaint yourself with the location of the nearest firebox.

And, you may never have used modern emulsifiers; but, that's just the reason why you should investigate now the many advantages of Tegin for greaseless creams, Protegin for oily creams, and Tegacid for deodorant creams.

When you want more information on how to use these modern emulsifiers, you can count on our being "there when you need it."

TH. GOLDSCHMIDT
CORPORATION
153 WAVERLY PLACE • N. Y. C.
Agencies & Warehouse Stocks in Principal Cities

1862* FIRST MEETING OF IRONCLAD SHIPS

Ending the Era of Wooden Ships

★ **1862** *Chas. Pfizer & Co. was the first firm in America to undertake the manufacture of Tartaric Acid and Cream of Tartar—Ending the era of foreign monopoly of American markets for these products*

¶ Until the 1860's, the tartaric acid and cream of tartar used in this country were imported, principally from France. Chas. Pfizer & Co. began the manufacture of tartar products in 1862, believing that the general use of these products in American foods and medicines demanded a higher standard of quality than had yet been attained in Europe.

¶ Today, Chas. Pfizer continues to emphasize quality. Throughout its ninety years of existence, this firm's fine reputation has been built on strict adherence to high standards of quality, purity, uniformity.

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MANUFACTURING CHEMISTS SINCE 1849

Most every modern woman keeps on hand several varieties of perfumes and cosmetics. But when traveling she is apt to take the one she values most highly—for its all round good quality and high distinction. To make a line of products she calls her "good traveling companions" requires experience, skill and the careful selection of materials. Givaudan's special knowledge of odors and their uses will serve you in good stead in creating such a line. And Givaudan's high quality odors and specialties will help maintain the distinction that means sales and re-sales. Our staff has developed these specialties to help you build up new and remarkably original effects. The facilities of the Givaudan laboratories are at your disposal.

GIVAUDAN-DELAWANNA, INC., 80 FIFTH AVENUE, NEW YORK, N. Y.

CONTINUED USE PROVES SAFETY AND EFFICIENCY OF GIVAUDAN SUNSCREENS

Sunscreens No. 2 and 52 are Time-Tested and Time-Proven on Various Types of People Under Blazing Suns in Many Different Climates.

ACCEPTABLE performance in actual use over a long period of time is the best criterion of value in suntan preparations. Many of the most successful on the market today have depended for several years on Givaudan sunscreens for their effectiveness. Continued use has established that products using these sunscreens have remarkable sun stopping power under blazing suns in various climates and weather conditions.

SUNSCREENS No. 2 and 52 are safe and effective and at the same time permit tanning—the result most desired by users of suntan products.

SUNSCREEN No. 2 is ideally suited for use in oily lotions, emulsified lotions and creams.

SUNSCREEN No. 52 is recommended for products of the non-greasy, alcoholic type.

START RIGHT NOW—before the big summer demand begins—to give your suntans the added safety and selling power of Givaudan sunscreens. Samples will be sent to you promptly on request.

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RADIANCE LIPSTICKS are self-selling. To see them is to want them. Write or wire today for samples!

We make private brand cosmetics exclusively. We do not compete with those we serve.

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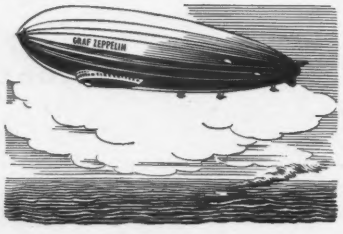
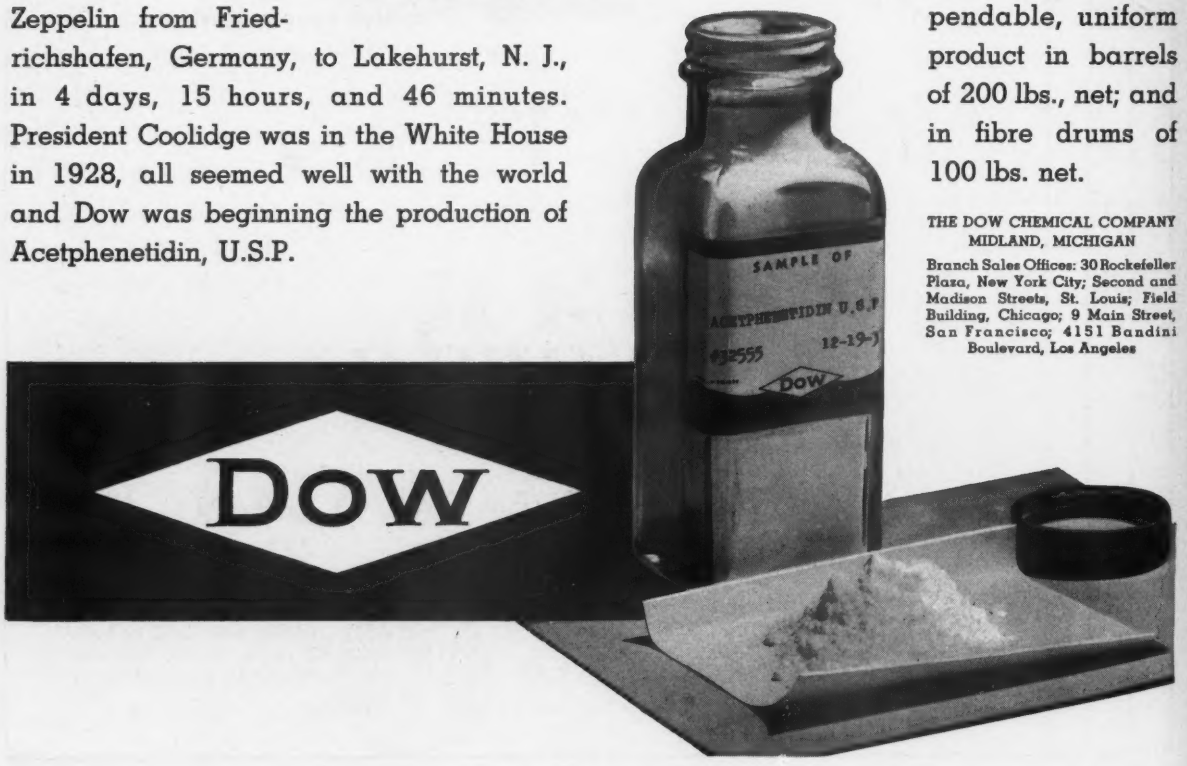
295 YOUVILLE SQ., MONTREAL

12 Years of ACETPHENETIDIN U.S.P. Production

TWELVE YEARS is a long time in this fast-moving world. A dozen years ago the world was agog over the new "talkies" and "The Jazz Singer" received a special award as the first movie to be heard as well as seen. America was thrilled by the flight of the Graf Zeppelin from Friedrichshafen, Germany, to Lakehurst, N. J., in 4 days, 15 hours, and 46 minutes. President Coolidge was in the White House in 1928, all seemed well with the world and Dow was beginning the production of Acetphenetidin, U.S.P.



These twelve years of production have established Dow as a leading producer of Acetphenetidin for use in medicine as an antipyretic, analgesic, and sedative. Twice ground through pulverizing mills at 200 mesh fineness, this crystalline powder is characterized by exceptional whiteness, while its purity is indicated by a melting point of 134½ to 135½° C. Dow ships this dependable, uniform product in barrels of 200 lbs., net; and in fibre drums of 100 lbs. net.



THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

Branch Sales Offices: 30 Rockefeller Plaza, New York City; Second and Madison Streets, St. Louis; Field Building, Chicago; 9 Main Street, San Francisco; 4151 Bandini Boulevard, Los Angeles

KIMBLE GLASS VIALS

for UNIFORMITY

through
AUTOMATIC
MACHINE FABRICATION

Kimble Glass Vials—produced entirely by specially designed automatic machines—possess a degree of uniformity attainable by no other method.

Boost your sales the ASSURED way: Sample and package in Kimble Glass Vials! There are types, sizes and closure designs to meet all modern requirements.

© 1940, KIMBLE GLASS CO.

K
KIMBLE GLASS

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY • • • • VINELAND, N. J.

NEW YORK • • CHICAGO • • PHILADELPHIA • • DETROIT • • BOSTON

"D & O" PERFUME SERVICE

offers you creative ideas backed
up by unsurpassed quality.

CHENE 182 **$9.00 per lb.**

A soft, mossy fragrance suggesting the cool glades of a forest. For perfume, toilet water and talcum.

VERNAFLEUR 9918 **$12.00 per lb.**

A delightful blend of floral and earthy odors to represent the exhilarating fragrance of a flower garden after a shower. For perfume, toilet water, talcum, sachet.

Let us work with you!

DE LAIRE

ISSY and CALAIS, FRANCE

PERFUME SPECIALTIES

represent the highest achievements of the perfumer's art, the results of years of painstaking research by chemists trained in the finest traditions of the French perfume industry.

A few leaders

Cinnamylal **Bouvardia**
Mousse de Saxe
Jasmin Vrai **Lilas Triple**
Sweet Pea Double

D&O
ESTABLISHED IN 1798

DODGE & 180 VARICK STREET

CHICAGO • PHILADELPHIA • ST. LOUIS • LOS ANGELES

because they can be relied upon . . .

THE CHOICE

of shrewd buyers everywhere

SANDERSON'S

MESSINA CITRUS OILS

BERGAMOT

LEMON

MANDARIN

ORANGE

For more than a century Sanderson's Oils have been acknowledged as the finest that come out of Italy. Experience has proved that it never pays to sacrifice quality for price.

OLCOTT COMPANY

NEW YORK, N. Y.

Plant & Laboratories: BAYONNE, NEW JERSEY

YOU are now required under the Food, Drug and Cosmetics Act to hold to definite limits the percentage of Lead-Arsenic-Heavy Metals and other objectionable elements in Pharmaceuticals—Cosmetics—Foods, etc.
This implies close laboratory control of raw materials. Simplify your problem by adopting Raw Materials which through the years have not been open to suspicion, the manufacturers of which have long since fixed their own standards of purity at limits which satisfy the new F.D.&C. specifications.
REJECTED
Alumina, Al2O3..... .10
Iron Oxide, Fe2O3..... .005
Manganese, Mn..... .005
Lead as Pb per million. 20 parts
Arsenic, As " " . 5 "
John Starr
Chief Chemist

High Quality Standards

are demanded by leading firms, such as those below — all represented by A. C. DRURY & CO., Inc.

THE ATLANTIC REFINING CO.
PHILADELPHIA, PA.
260 South Broad Street

Petroleum Products
White Mineral Oils U. S. P. for pharmaceutical and cosmetic uses.
All gravities, all viscosities.

H. J. BAKER and BRO.
NEW YORK

Sturge's English precipitated chalk U. S. P.
Extra Light — Dense

SIERRA TALC CO.
LOS ANGELES, CALIF.

Sierra Talcs approximate the ideal—chemically and physically—and excel in uniformity of milling and color.

THURSTON & BRAIDICH
NEW YORK
Specialties:
Gum Arabic — Gum Karaya — Gum Tragacanth
Vanilla Beans — Tonka Beans

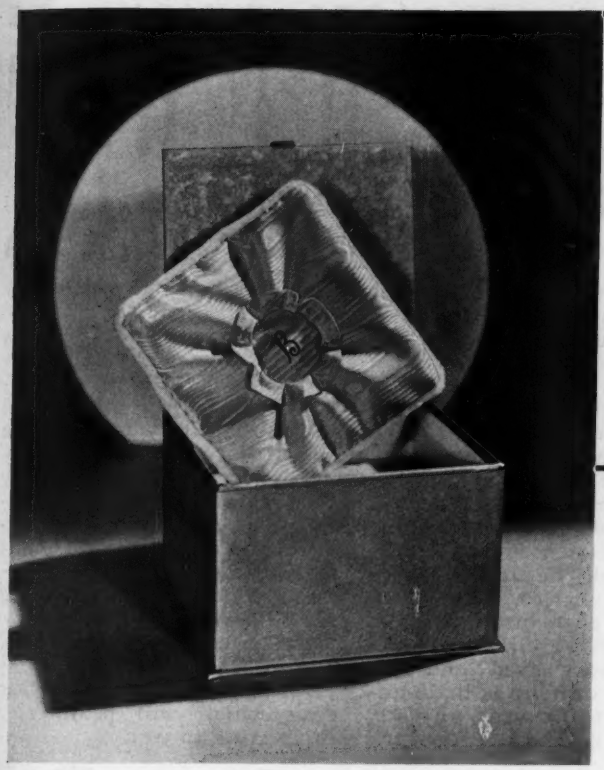
THE HARKNESS & COWING CO.
CINCINNATI, OHIO, U. S. A.
Manufacturers of Stearic Acid
Saponification Process

THEODOR LEONHARD WAX CO.
Established 1852
HALEDON • PATERSON, N. J.
Bleachers & Refiners of Bees-Wax
White Bleached Bees-Wax T. L. Brand
Extra Quality—U. S. P. and 100% pure

LACO PRODUCTS CO., INC.
BOSTON • NEW YORK
Manufacturers and Importers
Castile Soap "Laco"
Powdered — "Purls" — Bars

COLGATE-PALMOLIVE-PEET CO.
JERSEY CITY, N. J.
Executive Offices — 105 Hudson Street
Glycerine
Chemically Pure U. S. P. — Dynamite

A. C. DRURY & CO., INC.
219 EAST NORTH WATER STREET, CHICAGO, ILLINOIS



NEW FIVE-COLOR PUFF
(PATENT No. 1,813,518
OTHERS PENDING)

here's something new in POWDER PUFFS!

Here's something really new—a multi-colored puff that will greatly enhance the beauty and attractiveness of your powders.

Made entirely by machine, this puff can contain as many as five different colors at no extra cost. The *facing* of wool or velour may be one color, the *top material* of moired celanese another and the *ruff* a third. Two additional colors may be added by changing the *center* and using a contrasting color for *imprinting*.

• Thus, *at no extra cost* you get a five-color puff that appears to be hand made because of a mechanically produced fluted effect. We'll gladly send you samples of this new puff, the one that can embody practically every color characteristic of your line.

SERVICE TO THE TRADE EXCLUSIVELY

COMPACTS • ROUGE & POWDER • LIPSTICKS • CREAM ROUGES (All indelible shades—consistencies a la mode) • EYE SHADOWS • EYEBROW PENCILS
WATERPROOF MASCARAS

All products are checked by competent chemists, to insure full compliance with the new Pure Food, Drug and Cosmetic Act.

OXZYN SALES COMPANY

New Jersey Office: 257 Cornelison Ave., Jersey City Canadian Office: 2109 Ottawa St., Walkerville, Ont.
Telephone calls originating in New York will be accommodated through REctor 2-8360. In Jersey City Phone Delaware 3-2560.

WHOLESALE DISTRIBUTORS OF *Cosmetics of Quality* **MANUFACTURED BY OXZYN COMPANY**

DROPPING PARTS WHICH ARE

PRECISION-BUILT

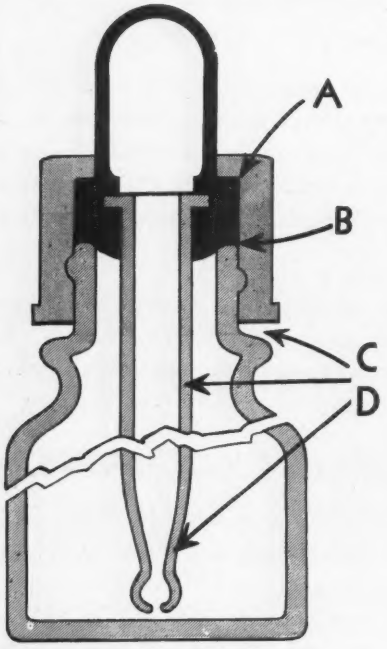
WITHIN MICROSCOPIC LIMITS

We have said it before and we repeat that the more particular you are, the more sure you are to choose and use "New Perfection" when you need dropping parts. That is so because "New Perfection" are designed and produced by specialists who have pioneered in introducing standards of microscopic accuracy and important refinements of details which spell the utmost satisfaction in service.

Dropping parts not built up to these high standards, are apt to be short lived and the source of numerous little annoyances to the user, unjustly reflecting on the quality of the preparations with which they are used.

The diagram below indicates some of the more visible refinements of "New Perfection." But only actual trial and use can fully demonstrate to you the many reasons why they are preferred and used by America's foremost manufacturers of drugs and pharmaceuticals. So make it a point to investigate more fully before buying more dropping parts for any of your products. Write us on your letterhead, and we shall be pleased to submit samples, prices and other data which will prove very interesting to you.

Patented in U. S. A., Canada, Great Britain and other countries.

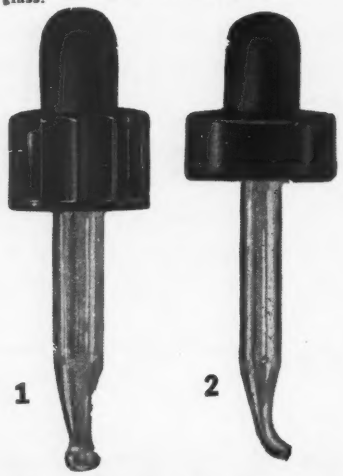


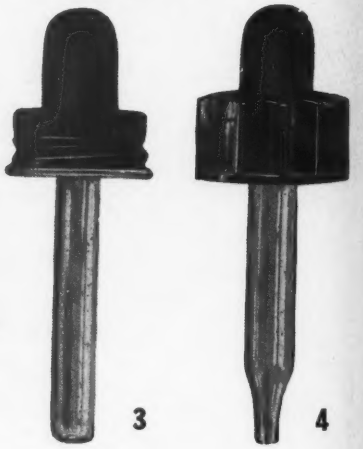
Cross-section of "NEW PERFECTION" Dropping Outfit

Bulb of high grade live rubber, with extra heavy "spring-cushion" flange (A-B) insures easy, perfect closure by slight turn of cap. Ample clearance between lower edge of cap and rib on bottle neck (C) to prevent breakage of cap by screwing on too tight. Dropper glass perfectly formed, with deep Flange at top fitting snugly in groove of rubber, and short taper at lower end for maximum strength. Well rounded tip without rough edges. (D)

No. 1
Non-rolling, extra depth, bakelite cap; non-swelling, Amekine synthetic rubber part, without strong odor; Saftee ball glass.

No. 2
Double shell metal cap; special thin flange rubber part; special bent glass.





No. 3
Single shell metal cap; clutch rubber part; tooled blunt glass.

No. 4
Regular or acid resisting plastic cap; regular rubber part in various colors; semi-blunt glass.

PENNSYLVANIA GLASS PRODUCTS CO.
418-20 NORTH CRAIG STREET PITTSBURGH, PA. U. S. A.
NOT AFFILIATED WITH ANY OTHER GLASS CONCERN)

New Perfection DROPPING PARTS

FINE
HEYDEN
CHEMICALS
HEYDEN
LIST
of
PRODUCTS
Fine
CHEMICALS
for the Drug & Cosmetic Industry
SODIUM SALICYLATE U. S. P.
Large Crystals • Flo-Crystals • Powder
Highly Purified • Fine White Color • Completely Soluble. These three types meet the diverse requirements of the trade.
METHYL SALICYLATE U. S. P.
A favorite flavor with the American public. Rely with confidence on the uniform purity of the Heyden brand to win increased consumer acceptance for your products.
ACETYLSALICYLIC ACID U. S. P.
Crystals and Powder
ACETYLSALICYLIC ACID
10-16-20% Starch Granulations
SALICYLIC ACID U. S. P.
Pure Crystal and Powder
HEXAMETHYLENETETRAMINE
FORMALDEHYDE • PARAFORMALDEHYDE
MINOR SALICYLATES
CREOSOTE • CREOSOTE CARBONATE
GUAIACOL • GUAIACOL CARBONATE
POTASSIUM GUAIACOL SULFONATE
BENZOATE OF SODA • BENZOIC ACID
BENZYL CHLORIDE • BENZALDEHYDE
BROMIDES • GLYCEROPHOSPHATES
SILVER PROTEINS
Complete List on request
HEYDEN
CHEMICAL CORPORATION
50 Union Square • New York
CHICAGO Branch — 180 N. Wacker Dr.
Factories: Garfield, N. J.—Fords, N. J.

NO. 1 SALES PROBLEM!

ANY salesmanager can answer that! It's how to keep the trade pepped up—promotion minded—interested, between the salesman's calls.

Your salesman gets in a good call, talks to the buyer, sees a few of the salesgirls, gets your goods on the counter, a promise of a window and then makes the next train. What has happened in a few weeks, when some other good salesmen have done their stuff? Well, you know.

In cities of over 100,000 how many salesgirls can your salesmen contact and interest? In the smaller cities how many times a year can they even visit the store? Not many girls, and far too few calls to keep up a permanent promotion interest. You know that.

But you can have a representative call on these salesgirls regularly. You can call on these stores in big and little cities regularly. You can keep buyer and salesgirls interest. How?

Tell your advertising agency that TOILET REQUISITES calls each month on the six thousand stores that will do 80% of your business even if it reaches six million a year. Tell them that the salesgirls (over 14,000 of them) read T. R. with consuming interest.

And tell them that copy in TOILET REQUISITES is just as important to your business as the most expensive consumer medium;—to get out of the rut of primitive advertising thought on trade magazines, and to do the kind of a copy job that will make buyers and salesgirls continually promotion minded on your products.

Toilet Requisites

101 West 31st Street, New York, N. Y.

COSMETICS

Give glamour to the face

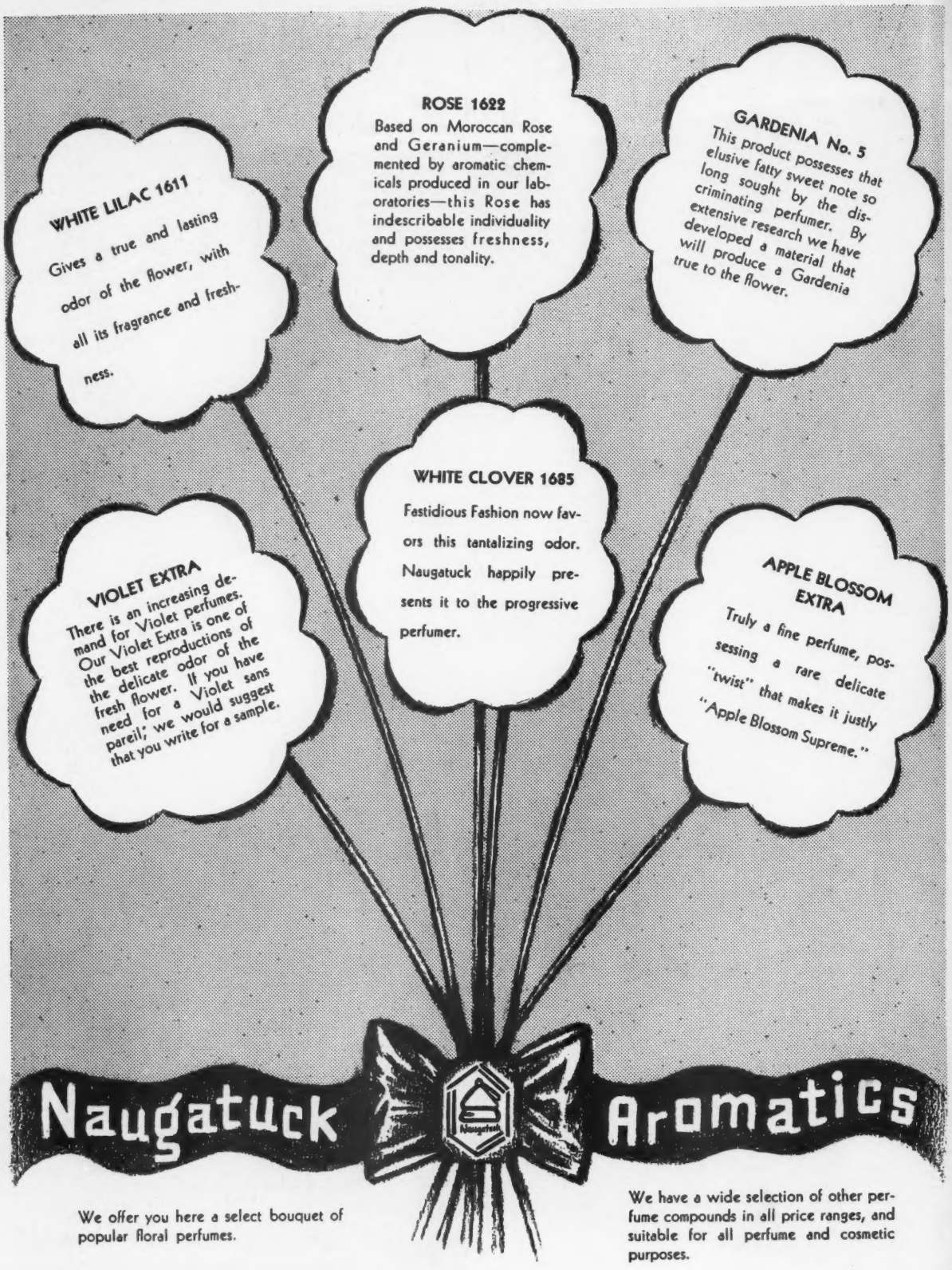
plead favor through the eye

. . . and win confidence in their claims through artful packaging. "To paint the lily"— to clothe merit in the garments of glamour through the medium of glass, is our acknowledged accomplishment. Owens-Illinois Glass Company, Toledo

OWENS-ILLINOIS

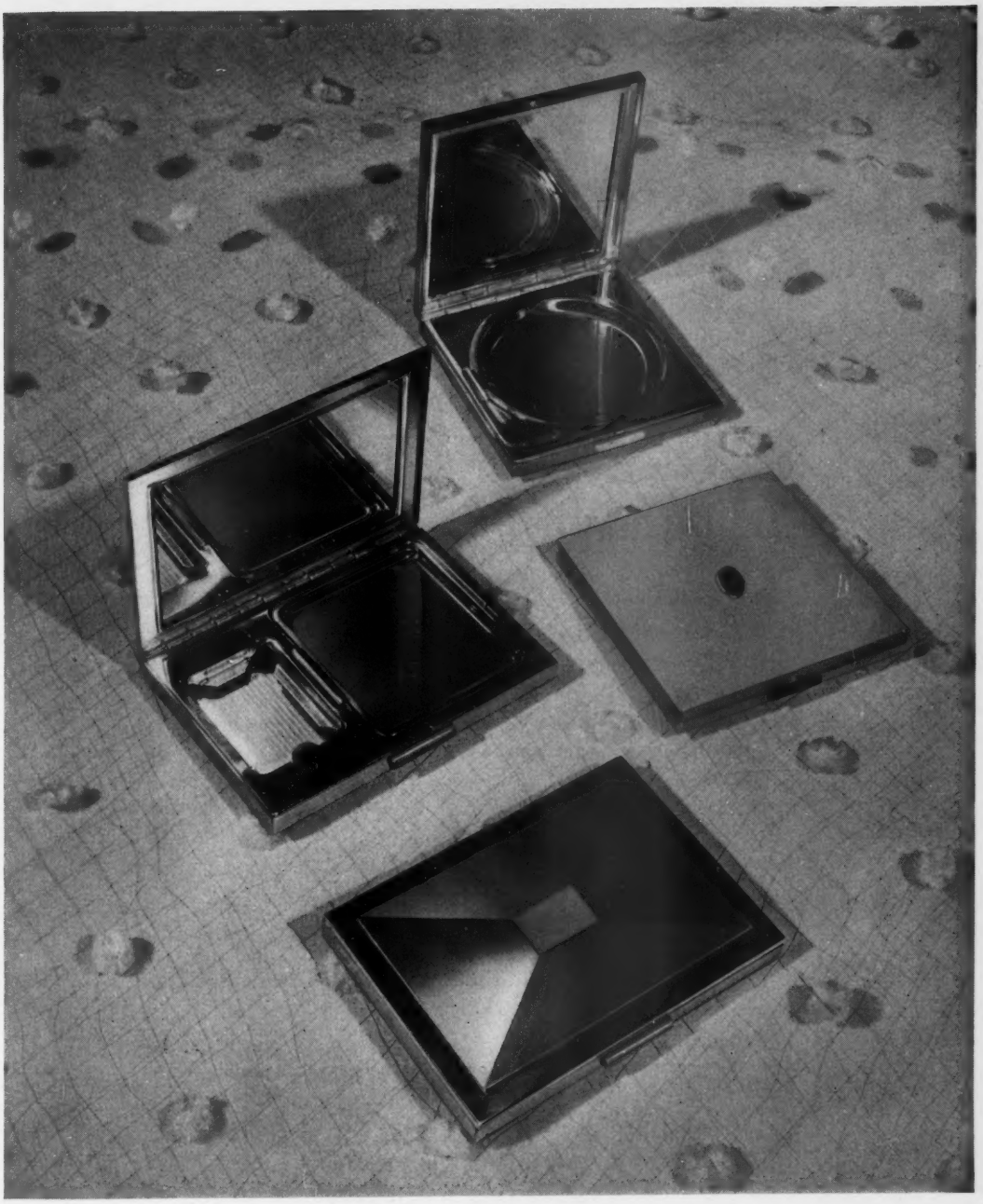
Complete Packaging Service

GLASS CONTAINERS — CLOSURES — SHIPPING CARTONS


ROSE 1622
Based on Moroccan Rose and Geranium—complemented by aromatic chemicals produced in our laboratories—this Rose has indescribable individuality and possesses freshness, depth and tonality.
WHITE LILAC 1611
Gives a true and lasting odor of the flower, with all its fragrance and freshness.
GARDENIA No. 5
This product possesses that elusive fatty sweet note so long sought by the discriminating perfumer. By extensive research we have developed a material that will produce a Gardenia true to the flower.
WHITE CLOVER 1685
Fastidious Fashion now favors this tantalizing odor. Naugatuck happily presents it to the progressive perfumer.
VIOLET EXTRA
There is an increasing demand for Violet perfumes. Our Violet Extra is one of the best reproductions of the delicate odor of the fresh flower. If you have need for a Violet sans pareil; we would suggest that you write for a sample.
APPLE BLOSSOM EXTRA
Truly a fine perfume, possessing a rare delicate "twist" that makes it justly "Apple Blossom Supreme."
Naugatuck Aromatics
We offer you here a select bouquet of popular floral perfumes.
We have a wide selection of other perfume compounds in all price ranges, and suitable for all perfume and cosmetic purposes.
153 WAVERLY PLACE • NEW YORK, N. Y.
440 W. WASHINGTON STREET, CHICAGO, ILL. • H. M. ROYAL, Inc., 4814 LOMA VISTA, LOS ANGELES, CALIF.

EYEBROW PENCIL HOLDERS • BOTTLE CAPS • JAR CAPS • METAL NOVELTIES TO INDIVIDUAL REQUIREMENTS

VANITY CASES • ROUGE CASES • PASTE ROUGE CONTAINERS • LIPSTICK HOLDERS (ALL TYPES) POWDER BOX CONTAINERS



Vanities BY BRIDGEPORT

Bridgeport compact cases and vanities are outstanding for style and craftsmanship. Vanities such as these can be produced to specification to harmonize with any cosmetic line or color scheme. . . . . .

BRIDGEPORT METAL GOODS MFG. CO.

BRIDGEPORT, CONN. Phone Bridgeport 3-3125 ESTABLISHED 1909

COSMETICS

FOR YOU ~ BY US

WE OFFER --

Experienced **Manufacturing with ample Factory Facilities to produce Quality Products with Prompt Service.**

Expert **Formulation by a Staff of highly trained Chemists recognized as Cosmetic Authorities.**

Research **Facilities to create Specialties or Cosmetics that are different.**

AND

For Your European and English Markets --

Our *"Americanized"* English Factory located near London can make your products your way, and for your convenience has a director permanently located in N. Y. C.

We solicit an opportunity to write or call on you to explain particulars.

Evans Chemetics, Inc.
33 West 46th Street, New York
Telephone Bryant 9-6805

Evans Chemicals Limited
Boreham Wood
Herts, England

WE LEAVE THE LAST STEP TO YOU

Because you can do it better than anyone else, we don't finish making R-O Seals. We don't form the all-important threads. You do that yourself.

It's called the Rolled-On principle. The unthreaded caps are pressed down on the container, sealing it securely with uniform pressure. Then the machine automatically Rolls-On the threads, using the glass itself as the pattern for depth and contour.

In that way the threads are always sure to fit each container. There can be no cocked or wedged caps. None too tight or too loose, either. It's easy to see why such a seal is more secure, preventing evaporation and leakage; yet easier to open because it isn't jammed on.

You might suppose all this costs a lot of money. Actually the price of R-O's plus the cost of application are so low that this better seal is easily afforded for even 10 cent items. In fact, some of the biggest selling 10 centers, as well as packages at a dollar or more, are long time users of Alseco R-O Seals.

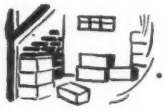
AT YOUR SERVICE: 26 YEARS OF EXPERIENCE BUILDING QUALITY SEALS AND SEALING MACHINES TO FIT THE NEEDS OF THE USER.

FOR SAMPLES AND PRICES OF ALSECO SEALS, WRITE ALUMINUM SEAL COMPANY, 1323 THIRD AVE., NEW KENSINGTON, PENNA.

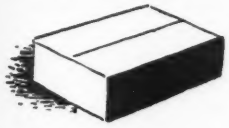
The Touching Fable of the Best Hand Soap in the World . . . And Why It Flopped

ONCE UPON A TIME THERE WAS A MAN WHO INVENTED A FORMULA FOR THE BEST HAND SOAP IN THE WORLD. HE GOT SOME BACKING BUILT A PLANT AND STARTED INTO PRODUCTION. HIS SALESMEN LOADED UP THE DEALERS

BECAUSE THE PRODUCT WAS SO FINE. BUT REPEAT SALES JUST DIDN'T COME IN, AND FINALLY THEY HAD TO CLOSE SHOP

. . . THE TROUBLE WAS THAT THE PACKAGE SCREAMED "BASEMENT" , AND SO THAT'S WHERE EVERY LAST ONE OF THEM LANDED  . NOBODY EVER THOUGHT OF BRINGING THIS SOAP UP INTO A BRIGHT AND DAINTY KITCHEN OR INTO A SCRUBBED AND POLISHED BATHROOM WHERE IT WOULD BE READILY AVAILABLE.

BUT—IF THE INVENTOR HAD CONSULTED ANCHOR HOCKING, HE MIGHT HAVE

FARED BETTER . HERE EXPERTS IN PACKAGE DESIGN WOULD ADVISE HIM WHAT SORT OF A BRIGHT, CHEERFUL, CONVENIENT GLASS PACKAGE TO USE . AND WHAT SORT OF A CLOSURE TO PUT ON IT TO MAKE IT PRACTICAL. HOW TO PACK AND CARTON  IT. AND FINALLY, HOW TO MERCHANDISE

THIS PACKAGE. THEN, BEING A HANDSOME AS WELL AS A USEFUL PACKAGE , FOLKS WOULD HAVE KEPT IT OUT WHERE IT COULD BE SEEN AND USED . SALES WOULD HAVE COME IN MULTIPLE UNITS AND REPEATS WOULD HAVE FOLLOWED NATURALLY.

Moral: IF YOU ARE A MANUFACTURER OF HAND SOAP, AND WANT TO STEP UP YOUR SALES AND PROFITS, ASK US TO SEND YOU AN EXPERT IN THAT FIELD. HE WILL GIVE YOU SOUND PACKAGING RECOMMENDATIONS THAT WILL AID MATERIALLY IN BUILDING SALES. ONLY ANCHOR HOCKING PROVIDES COMPLETE PACKAGING SERVICE . . . CONTAINERS CLOSURES CAPPING MACHINES .

ANCHOR HOCKING GLASS CORPORATION, LANCASTER, OHIO.

IF TOMORROW . . .

If tomorrow found some dense South American jungle the source of supply for a new therapeutic herb, most pharmaceutical manufacturers would turn to Penick to obtain supplies as quickly as possible. The African veldt, faraway Indo-China, obscure islands—no matter where botanicals grow, if it can be secured, we will get it for you. That is part of our service as the world's largest botanical drug house—just as much as our huge stocks for ready shipment of orders, our staff of watchful scientists who safeguard the quality and potency of Penick botanicals, the special mills we use to grind drugs to exact specifications, the reasonable prices which our extensive facilities make possible.

● *For consistent quality, order from one reliable source . . . Penick . . .*
CRUDE BOTANICALS, GUMS, ALKALOIDS, FISH LIVER OILS, SOLID AND POWDERED EXTRACTS, COSMETIC RAW MATERIALS, INSECTICIDE BASES

Are You Receiving our "Price List and Manual"?

S. B. PENICK & COMPANY

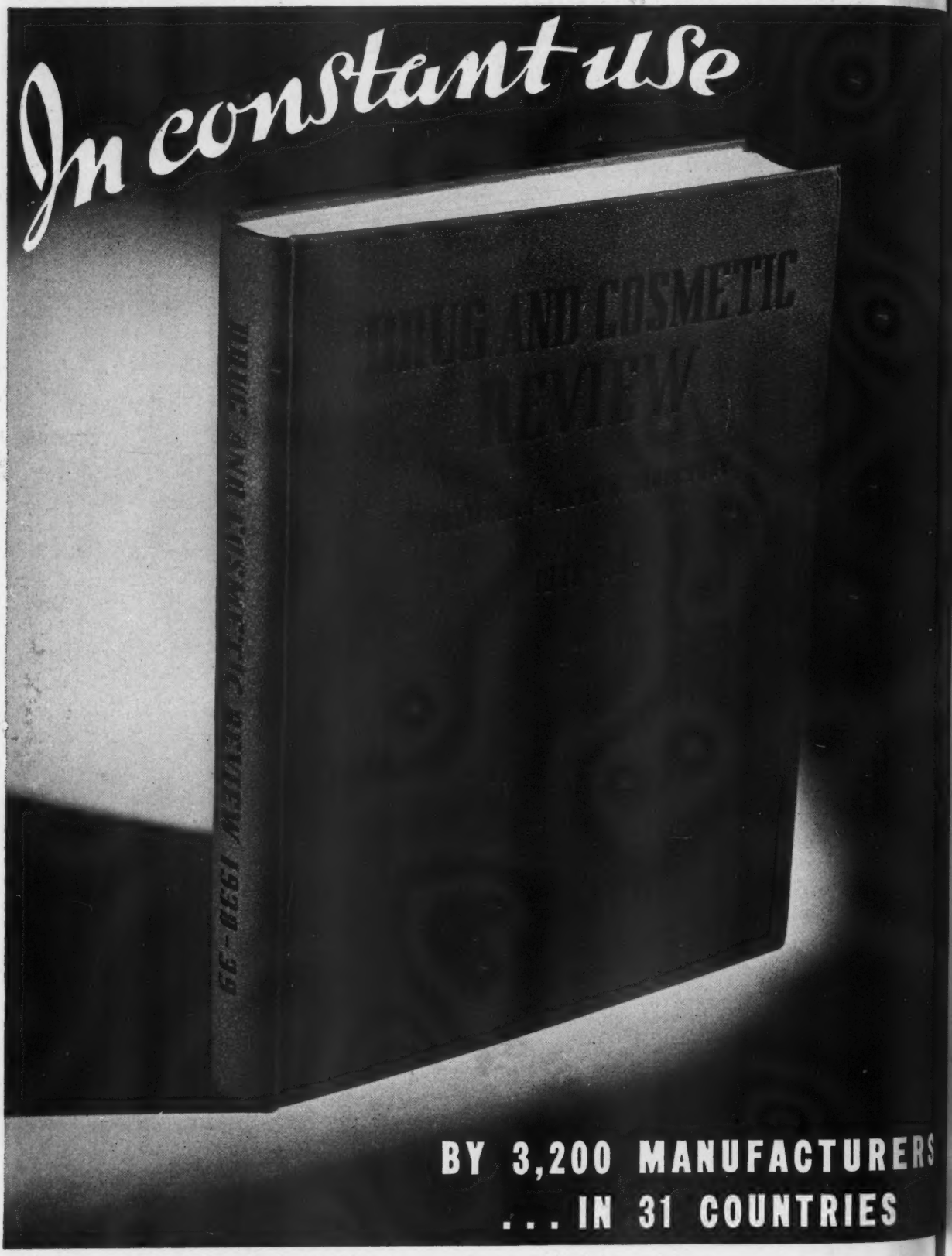
132 NASSAU ST., NEW YORK, N. Y. **1228 W. KINZIE ST., CHICAGO, ILL.**

THE WORLD'S LARGEST BOTANICAL DRUG HOUSE

"... they keep ahead in can developments, and in research. They go the limit to give us quality and service. And with their factory set-up we're always sure to get the deliveries we need."

CANCO

AMERICAN CAN COMPANY, 230 PARK AVENUE, NEW YORK, N. Y.


In constant use
DRUG AND COSMETIC CATALOG
DRUG AND COSMETIC REVIEW 1938-39
BY 3,200 MANUFACTURERS
. . . IN 31 COUNTRIES

STURGES' STANDARD PRECIPITATED CHALK

Precipitated chalk has many industrial uses. In most cases these uses have been made possible by specialized research working toward a specific grade of chalk suitable for that one purpose.

The Sturge laboratory has worked in close cooperation with manufacturers for many years in exploring and solving their problems in the formulation of products containing precipitated chalk.

Today Sturges' Standard Precipitated Chalk is meeting the requirements of many different manufacturers in many different products by furnishing a specific grade which never varies in the uniformity of physical and chemical characteristics.

You will find the right grade of Sturges' Standard Precipitated Chalk always uniform, most suitable for your

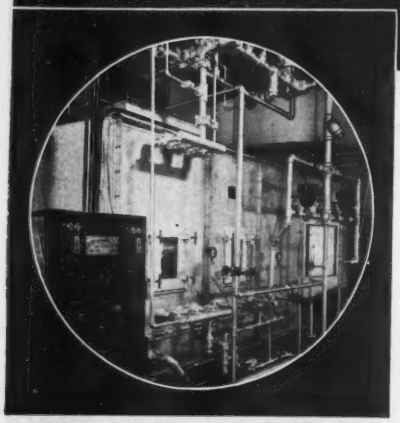
TOOTH PASTE
TOOTH POWDER
FACE POWDER
ROUGE
ANTI-ACIDS
PILL AND TABLET COATING

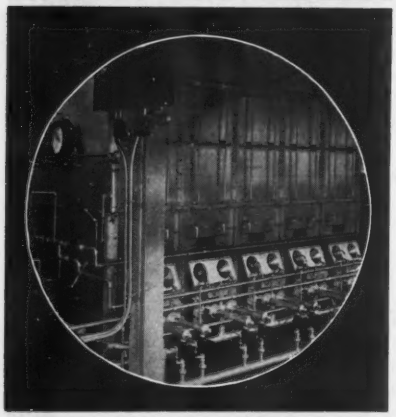
JOHN & E. STURGE
LIMITED

Distributors:

H. J. BAKER & BRO.
271 Madison Ave. • New York, N. Y.

The secret of UNIFORM production





ROSS Air Systems

DRYING — BAKING — CHILLING
REFRIGERATION — AIR CONDITIONING

In the drug industry where UNIFORMITY of production and product is paramount, Ross Pure Air Systems provide an essential service. Designed for the widest range of temperatures — from ZERO to 1000° F. — they are successfully maintaining production schedules and quality of products while eliminating losses due to spoilage. Perhaps you have a job for AIR! It will pay you to talk it over with our experienced engineering staff.

J. O. ROSS ENGINEERING CORPORATION

Main Office — 350 MADISON AVE., New York, N. Y.

CHICAGO—201 North Wells Street

DETROIT—12953 Greeley Avenue

ROSS ENGINEERING OF CANADA, LIMITED, Dominion Square Building, Montreal

11 million labels a day

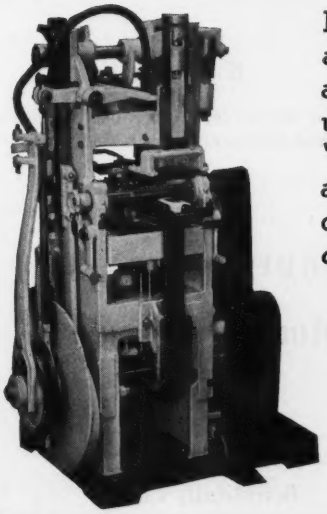
Every day—

PERFECTLY REGISTERED BY THE *Labelrite* METHOD!

More than 500 highly capable plant managers who replaced obsolete labeling equipment during the past three years, did so *only* because the

Labelrite **PONY OR FULLY AUTOMATIC**

demonstrated unparalleled advantages in labor saving, and in the method of application.



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COSMETIC FORMULAS

MODERN COSMETICS

by

FRANCIS CHILSON

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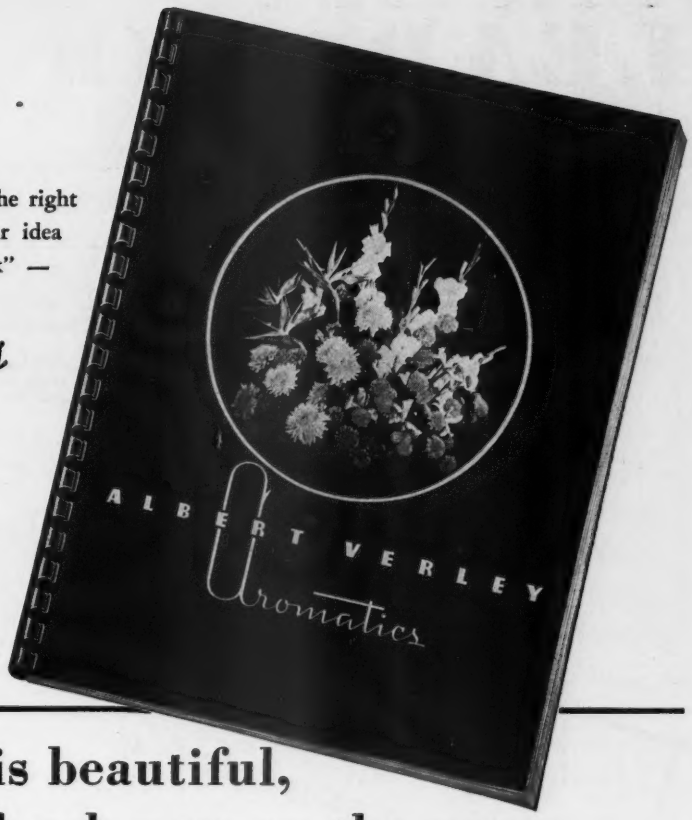

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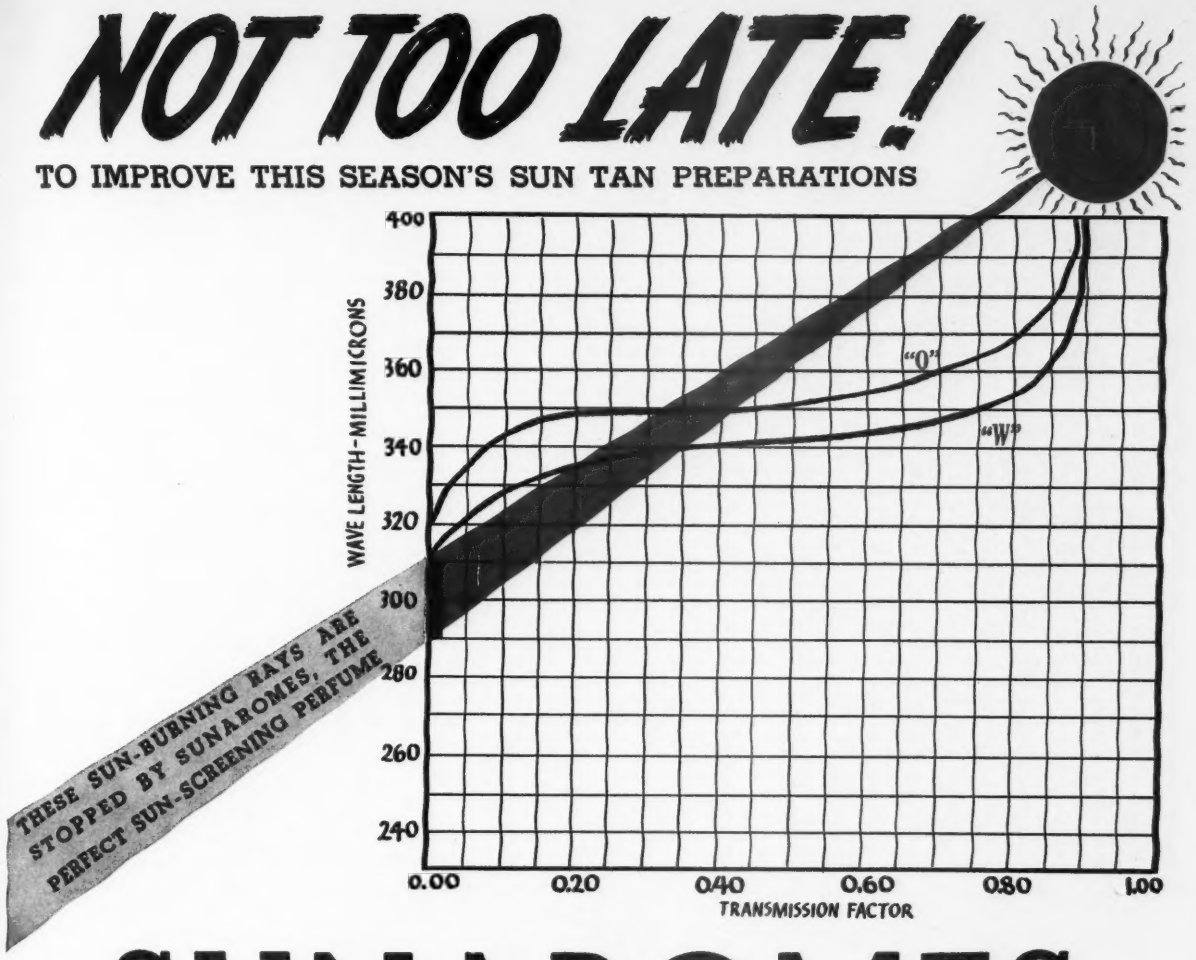

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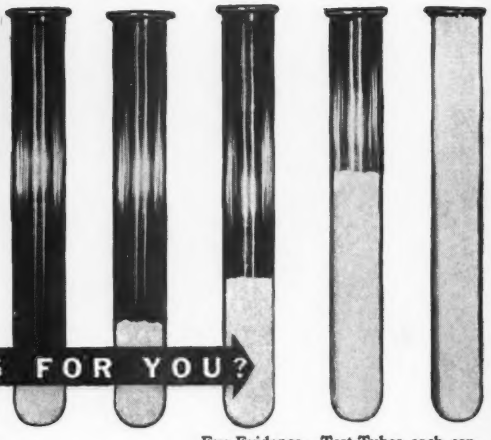

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PROFIT THROUGH DEALS

Deals, combination offers, and like merchandising stunts have many times been roundly condemned by manufacturers, wholesalers, and retailers, as disturbing influences in the drug business. However, these practices continue to be used widely, and today the practices seem to have reached still higher limits. One of the most prominent stunts today is to give a smaller package with a larger package of the same product, and let the consumer purchase the two for the price of the larger package alone. The smaller package is supposed to be a sample which the consumer can try first, and then, if he does not like the product, he can return the larger package and get his full purchase back. In fact the scheme is simply a method of cutting the price to the consumer, which might seem wise with the fixed retail prices of today.

But the deal system is being more loudly condemned today than ever before to our knowledge. Even druggists who move large quantities of merchandise and who supposedly are able to take advantage of all deals are complaining bitterly. Druggists are being oversold because of the deal system, but they feel they must purchase deals to make that additional profit. Now that we have price maintenance, which was supposed to produce adequate profits on the fixed selling prices of goods, most items are sold at fixed minimums and list prices at retail are a thing of the past. Therefore, it has not only been necessary to put a floor under prices, but it is necessary to force the retailer to buy more goods than he can use so that his profit will be adequate.

But if the retailer cannot sell the extra goods which he gets from the deal, his profit is tied up in dead merchandise. Sooner or later this is going to wreck him. He cannot offer only a few products of the same type and therefore move all his deal merchandise, but he must carry all the products that his customers demand. Any way that the retailer tries to figure it, he is licked if he tries to get his profits by means of deals. Surely it is time that the manufacturers tried to devise some method of letting the druggist make more than a paper profit which only serves to crush him.

THE F.T.C. AND ORIGIN

Perfumes made here from imported concentrates by branches of foreign houses must be labeled domestic and throw off a foreign atmosphere. But tooth brushes made here from imported handles and bristles cannot be labeled domestic.

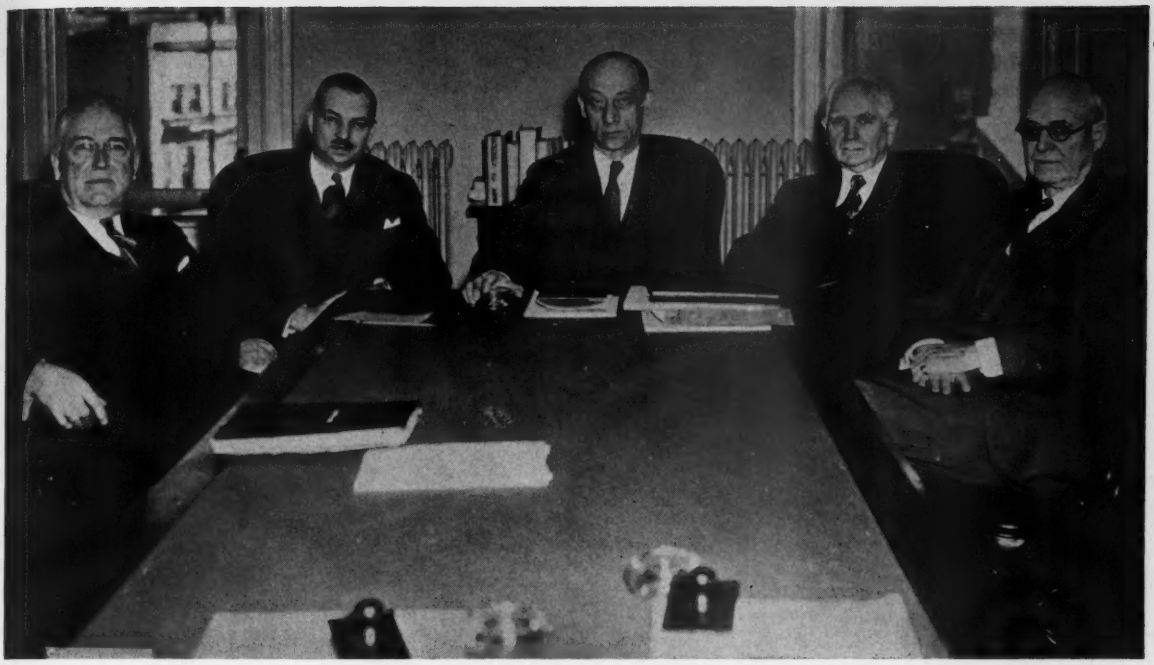
THE action of the Federal Trade Commission in its attempts to protect the public against any misunderstanding of the origin of the products of this industry has certainly reached the ridiculous stage. But beyond this the Commission is proving itself inconsistent and is apparently taking the attitude it will force manufacturers of products made from imported ingredients to say that the product is made here when the foreign product is preferred, or to say that the product is made abroad when the American product is preferred.

In the case of perfumes there is undoubtedly a preference in this country for products imported from France. For this reason, the majority of our perfume houses selling the great bulk of our fine perfumes are branches of French houses. Many of these branches have been incorporated as American companies. Many of these houses also import the perfume concentrates from abroad and mix them with alcohol here. Others import their products in the finished packages, while still others import their perfumes in finished packages, while they import the concentrate for making the toilet water.

Into this complicated situation the Federal Trade Commission barges like a bull in a China shop. They say that American corporations owned by the foreign houses are not French or English companies since the head offices of the companies are in this country. They say that Yardley of London, Inc., is misleading as a name and that the word "London" must be dropped from the name of the company. Furthermore, although the perfume concentrates for Yardley products are imported from England and are the same as the bases of the products sold in England, the company must drop such expressions as "English" or "Old English." The Commission says in its order that "many users of cosmetics and perfumes consider that such articles made or compounded in England are superior to similar articles produced in the United States."

Similarly with Rigaud, Bourjois, and others, the Commission will not allow any references to the French companies with which they are associated. No mention of Paris can appear; if French names are used for the perfumes, it must be clearly stated that the perfumes are of domestic origin. The Commission concedes that these companies have the right to state the country of origin of the various ingredients when immediately accompanied by an explanation that the products are compounded in the United States. In these cases, the Commission arrives at the conclusion that perfumes of French origin are preferred by the American people.

But at the same time that the Commission becomes so particular about the perfume and cosmetic manufacturers stating that their products are made in the United States although the main part of their products comes from abroad, they completely reverse themselves in the case of toothbrushes. For last month we reported a cease and desist order issued against a toothbrush made in this country from an imported handle and imported bristles. Here we had an instance of a little sharp practice perhaps, but the facts and the decision are interesting. In this case the holes drilled into the handle for insertion of the bristles were drilled so that the word "Japan" was completely obliterated from the handle. Then the bristles were inserted, and brush was marked "This brush is made in U. S. A." The Commission finds that "a substantial portion of the buying public has indicated a preference for American made products, in-



THE FEDERAL TRADE COMMISSION

cluding toothbrushes." Therefore, although the brush was made in this country from imported ingredients, the Commission finds the practice misleading since "the toothbrushes were not wholly 'Made in U. S. A'."

An American firm which went by the name of London House, Ltd. has been in existence in this country for many years and is an importer of English brushes. The advertising of this company helped to create an English atmosphere in keeping with the name of the company and the country of origin of the products which it sells. However, this company has signed a stipulation by which it agrees to change its name and drop the creation of an English atmosphere in its advertising.

Perfume and cosmetic manufacturers have no idea how far this trend will go. They consider it silly, but until some of the cases now on appeal are settled one way or another by the courts, they do not know what to do about it. The question now arises will the Commission follow this thing to it ultimate conclusion and insist on such things as "Brothers" instead of "Freres"? Will they insist that accents which give name a French tone be taboo?

Certainly it is apparent that the Federal Trade Commission is proceeding on the assumption that by and large the American public is composed of morons. And by following this assumption, the Commission likes to classify all merchandising efforts as deceptive acts and practices so that it can exercise complete control over all business.

Certainly the Commission can have no objection to domestic manufacturers using French or English names to their products so long as these manufacturers state clearly that the products are made here. We suppose that a manufacturer can create any kind of an atmosphere he likes around his products so long as he clearly states that the products are domestic. Certainly the advertising of Kraft Old English cheese creates an English atmosphere but only for the purpose of conveying the thought that this domestic cheese is similar to the imported English cheese.

We fail to see, under these circumstances, why a firm like Yardley, which brings in a concentrate of lavender from London, is not able to call its lavender products "Old English." It would seem to us that these products are more truly English than an imitation of an English cheese. Certainly the story regarding the compounding of these products can be told in advertising without deception, and the products can still be called "Old English." Furthermore, the firm could properly be called Yardley of London without deception so long as the firm is owned abroad. The fact that the corporation is a domestic one and therefore the head office of the American company is here, makes the direction of the company and the compounding of its products very little English.

It is difficult to understand the workings of the minds of the five Federal Trade Commissioners when they arrive at such conclusions as they did in these cases and believe that they are serving the public good. We fail to see wherein the public benefits from such orders as these. We are of the firm opinion that the consumer will only become completely confused if these orders stand and more are issued.

(Continued on page 406)

WRAPPING MACHINE PROBLEMS

Even in the early days there was continual strife between the manufacturer of the machine and the supplier of the materials which it used; paper, glue, and the like. Very often special papers had to be developed, or the wrapping machine wouldn't work. In those days, all wrapping materials were fed in sheets and even after all these years some suppliers forget that the grain should run in the direction the sheet is fed from the magazine. This is because wrappers are held in a stack by needles or daggers and removed one by one by rubber rollers whose tension is uniform. If the needle or dagger pulls through the sheet *with* the grain, the resistance will also be uniform, but if it has to do this across the grain the result is uncertain because usually the resistance varies and a piece of the wrapper is torn out instead of the needle making a straight slit through it. This generally results in a crooked wrapper and an unsatisfactory package. Waxed paper which came later could, of course, only be fed from a roll. Here again one wrapping machine manufacturer said that only one brand of waxed paper could be used on his machine and the company that made that waxed paper was financially interested in his particular wrapping machine.

How times have changed! I can safely say that of the wrapping machines built at the present time 90% or 95% of them use material in rolls, and this is true even of the high speed chewing gum wrapping machines which wrap 800 or 900 sticks a minute.

This change is due largely to the introduction of transparent cellulose and wrapping machines had to be developed to wrap and glue it. No sooner had the use of plain cellulose been perfected than the manufacturers developed a moistureproof material, and the wrapping machine manufacturer had to start all over again and find a way of making this stick. This was really pioneering work, and for a time presented, apparently, unsurmountable obstacles. As we all know now this difficulty was conquered by the use of a solvent. Other problems such as static had to be cured by the use of static eliminators. An entirely different technique had to be worked out in the case of Pliofilm, but I am glad to say *it has been solved.*

We do not consider the handling of cellulose and acetate wrappers, taken separately, as problems any longer. However, the latest problems are combinations, either incorporating laminated material with one or the other of the above-mentioned materials, or else some highly special coatings, which are sometimes even mysteries to their manufacturers.

It will be well to dwell on this problem in its relation to our customers, because the material is usually sold to them first. The samples of this material are printed and shown, and their appearance is such that the prospective customer is very much interested and, without giving much thought as to how the new material will operate on their existing machines, he puts in an order for the material. The first disappointment comes when the new wrappers are tried on their wrapping machines. It may show up in the feeding of the sheets, or if successful at this point, probably no trouble is encountered until the wrapper is to be sealed. Then it is found that the adhesive which they have been using constantly with success on their old wrappers does not stick with the new material.

From then on a series of disappointments, with consequent loss in production and faith in the ability of wrapping machines, ensues. The general complaint is that the packages must rest longer on drying conveyers, stackers, etc. We sometimes utilize heated plates for drying, but this is not practical with certain highly glazed papers, where the coating will stick to any heated surface. This grief occurs not only with coated papers, but with laminated foil wrappers and special water-proof, moisture-proof, or other proof material as well.

We recently had an order for a machine to wrap an article in a wrapper which to us looked no different than an ordinary printed wrapper for which we had built

By GEORGE A. MOHLMAN*

machines for years. Everything went well with the machine. The articles were wrapped very neatly, but the ends just would not stick. We tested them for the time required for sticking, and found that the amount of time required would have taken an unheard of length of discharge conveyor. Incidentally, these people supplied us with an adhesive in special powder form, which they claimed they had been using successfully by hand. However, neither we nor certain glue companies were able to produce an adhesive which would stick these satisfactorily in a reasonable length of time. Here is a case where the successful operation of a machine was dependent upon a satisfactory adhesive which could not, be obtained.

Another problem we have encountered is that some of our customers take the guaranteed speed of our machines too lightly. When the machines are sold for a certain speed, they are tested at this speed for satisfactory results. However, when they get to the customer's plant, after a short period of time, the machines are stepped up higher and then the fun begins. The first trouble they encounter is that the packages do not stay sealed. Another is that there is not enough heat in the heaters, etc. They are all so ready to condemn the operation of the machine because they cannot step up its speed over and above that for which it was contracted.

There is one point we wish to bring home in connection with this subject, and that is, we all want to be out ahead of the pack. The customer to have the latest in wrapping material and sales appeal; the machinery builder to have the equipment to anticipate any forward step in connection with improved wrapping material.

Our suggestion would be to plan changes in present materials carefully. This can be enhanced by the customer's giving the equipment manufacturer information regarding the various qualities of the wrapper, both favorable and unfavorable, so that he can provide equipment to satisfactorily handle this material.

The paper supplier, for his own interests, should consult the manufacturer of the equipment on which his prospective customer intends to use the material. In this way, a large proportion of the difficulties could be taken care of before they run into real problems. So much for glue.

When transparent cellulose materials were first introduced there were no presses capable of printing this material. In fact, the only rotary presses which were available commercially were for waxed paper and here the cutoff was definitely limited by the size of the printing cylinder. As time went on users of transparent cellulose demanded that this material be printed, and first on plain cellulose and then moisture-proof success was gradually achieved and more colors added until beautiful work is being produced.

While this development was going on the wrapping machine manufacturer was not idle but was anticipating the time when registration of design would be called for. Fortunately this demand was taken care of by the invention and development of the photo electric cell. Since the practical development of this device we have worked very closely with the suppliers of the electric eye unit, and I am giving you here some technical information furnished by one of our experts. I am sure it will be of interest to some of you who have to print the material which is to run on the machine.

Dealing particularly with the electric eye unit, we should note that the amount of light falling on the photocell determines the amount of output given. With the high speed photocell units, the amount of light *change* is the factor which controls the operation.

Bearing these in mind, the size of the aperture is, obviously, what will determine the accuracy of placement, and within reasonable limits, the smaller the aperture, the more sensitive the outfit will be. For good accuracy, the aperture should be made comparatively

*Vice-president Package Machinery Co., delivered at Packaging Conference, New York, March 26.

narrow and long, so that a short travel of the sheet gives a complete eclipse. The combination of the accuracy of the paper feed and the accuracy of the photocell control gives the accuracy of the cutoff length to which must be added the accuracy of placement on the package for the final result. The size of the printed spot should be such that complete eclipse of the aperture can be made and the width of the spot should be the width of the aperture, plus a safety margin.

As regards the color of the spot, it should be noted that the response of the photocell is not dissimilar to the response of the human eye. The human eye responds to yellow most of all, and to the reds and blues to a lesser degree. The photocell responds to reds and yellows most of all, but less to the violet, blue, and green end of the spectrum. Because of the sensitivity to the red and yellow end of the spectrum, the output of the photocell is greater with a red light than a blue light, and with a red light, that is with light shining through a red spot, the output of the photocell may be as great as it was before there was the added interference of the printing. While we have successfully handled red and yellow print, the contrast from red or yellow is not enough, as a rule, to give very robust operation.

As regards voltage variation on the supplying line, the photocell unit itself will stand approximately a 10% variation, but with a 10% variation on the *light* bulb, the drop in lighting is considerable. This light change can be enough to upset operation. Generally speaking, a factory lighting line is within the workable limits. Power lines with motors on them which are starting and stopping, tend to be very bumpy and to have surges of current which do upset operation. If motors, heaters, etc., have been put on the lighting line, causing excessive voltage variation, a separate line taken from the switchboard will, probably, be necessary. An alternative is to use a voltage regulator of the balanced transformer or a similar type which takes a varying voltage input and delivers a steady voltage output within the required limits.

Getting back to the suppliers of printed roll stock, I am sure that they are watching the development of gravure presses because these give satisfactory multicolor printing jobs and the printing roll can quickly and easily be changed so that various cutoff limits demanded by the limits of a proper sized wrapper can be given to accommodate a specific package.

When a user contemplates a change in the size of the package, it is advisable to consult the machine manufacturer in order to avoid major changes in the machine, as otherwise, it may be found that the new package exceeds some limit on the machine, or for some reason requires a change in the style of wrap.

A good example of this is the revelation type wrapper which requires a change in the folding in order to seal the waxed paper to the waxed paper, because the waxed section does not seal firmly to the Cellophane. A further example is a very thin package which requires the folds brought under the package rather than being made on the end, in order to obtain a firm wrap.

If flaps on packages must be used, then the direction in which the packages are fed will affect operation. The printing may be such that it requires the loose end of the flap to be placed on the front side. It would be advisable from the machine point, to reverse the printing so that the flap trailed. A box may have extension edges and, by changing around the direction in which it is fed, it is possible that you may avoid doing the folding over protuberances.

It may also be a great advantage to turn a package round, in order to prevent goods spilling out of it. A minor modification to a carton may give the necessary added strength and, an example of this is a tuck and type carton with side flaps which are made to fit the carton to give the necessary strength to hold the carton square. Without the supporting side flaps, the carton may lean over and get out of shape. A simple lock may sometimes be added to prevent the end of a carton pushing in and similarly, a folded type carton or boat may be folded in such a way that the filled goods will help to support the carton and hold it in shape. If the carton is folded so that it naturally springs out rather than in, the bulge can cause loose wrapping, and particularly, jamming in the folders.

A further example is the case of a carton which has a folded bottom with a joint made in the middle of the bottom. Such a carton may quite easily collapse when you try and lift it, whereas, if the joint were moved over to the side, you get the added support from the side wall corners.

Again, there is the boat which has the sides cut down so much that it breaks its back of its own weight. A folded-over side, giving a double thickness of cardboard or a comparatively small addition to the height of the side, can give the extra strength to make the carton or boat rigid.

As a further precaution I again suggest that where there is any doubt about the satisfactory use of materials on any type of wrapping machine that the user or prospective purchaser of that equipment submit samples of all his materials, wrappers, adhesive, tape or whatever else is involved, to the machine manufacturer before ordering any of them in quantity. Such a move will not only prevent a possible loss of money through the scrapping of improper material, but should benefit production by holding the machine manufacturer responsible for the performance of his equipment if he approves of the material to be used.

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Fortunately for manufacturers of this industry several of these cases have been appealed to the United States Circuit Court, and will eventually reach the U. S. Supreme Court. When these cases are decided we shall know whether or not the Federal Trade Commission is right in its interpretation of the law.

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HEPARIN

By M. A. LESSER

THE ability to coagulate is one of the most important characteristics of the blood. There are times, however, as in transfusions, when an anticoagulant, something that will slow up or delay clotting, is vitally needed. A few such substances are available to medicine—sodium citrate, hirudin (obtained from the common leech), and heparin. Of these, only heparin is a normal constituent of the body; considered one of the basic materials responsible for maintaining the normal fluidity of the circulating blood, and acting in opposition to the coagulating mechanism. When used therapeutically, heparin is said to combine the highest efficacy as an anticoagulant with a complete absence of other changes in the blood.[1]

As far back as 1772, Hewson observed that tissue from the large blood vessels delayed the normal coagulation of the blood. It was not until 1918, however, that Howell and Holt[2] demonstrated that a potent substance possessing this property was to be found in the liver. Later, heparin, as this anticoagulant was called, was obtained from other organs, particularly the lungs. Since that time much work has been done to isolate pure heparin, so as to study its chemical and physiological properties and to open new fields of practical application for it. The present knolwedge of the chemical structure of heparin, over which there is still much divergence of opinion, may be attributed largely to the work of Jorpes of Stockholm[3] and of Charles and Scott of Toronto[4], although others[5, 6] have contributed considerably to the research on this substance. According to Jorpes, heparin is considered to be a mucoitinic sulfuric acid, a view largely substantiated by another, more recent analysis.[7] Further work has shown that the high molecular heparin polysaccharide is built up from glucuronic acid, glucosamine, acetic acid and sulfuric acid. The Toronto investigators' studies showed that the empirical formula for heparin could be expressed as $C_{26}H_{65}O_{50}N_2S_5$. The sulfur content of different heparin preparations varies, however; Charles and Scott found 11.5 per cent. sulfur in heparin from the lungs while Jorpes obtained 13.6 per cent. in liver-heparin. This is an important consideration, since recent work has shown that the anticoagulant activities of different heparin preparations varied with their sulfur content, the potency increasing with the higher percentages of this element.[8]

The properties of heparin reflect what is known of its chemical nature. The potency of this anticoagulant is unaffected by oxidizing or reducing agents and by ordinary enzymes. Since it is resistant to heat, the product may be sterilized by autoclaving. Furthermore, solutions of heparin are not susceptible to bacterial contaminations.[9]

As has been indicated, heparin is largely obtained from the liver and lungs. The walls of large blood vessels are also excellent sources from which heparin can be prepared. Other organs, however, contain their complement of this essential substance. The normal heparin content of various tissues, obtained from dogs in experimental studies, expressed in units per 100 grams of fresh tissue is for the lung 1100, liver 2800, spleen 210, heart 100, kidney 400, muscle 400, blood 10 and intestine 730.[10] There appears to be a definite relationship between the quantity of heparin present in a tissue and the number of a certain type of white blood cells, known as "mast cells" (basophylic leukocytes), present.[11] By special staining technics the place of origin of heparin was found to be these mast cells. Their localization in the vessel walls, liver and lungs further substantiates the view that heparin is concerned with maintaining the fluidity of the blood.[12]

Various methods of producing and purifying heparin have been tried and advocated, but the procedure worked out by Charles and Scott is now most generally used by researchers and clinicians. With this method, heparin extracts from tissues or from commercial preparations are converted into a crystalline barium heparin compound. This is used for the production of pure heparin by precipitation with acetic acid after the barium has been removed by the addition of an excess of

ammonium carbonate. Compounds of heparin with benzidine, protamine, brucine and quinine have also been produced. The benzidine heparin is especially interesting. It is partially insoluble, but when injected subcutaneously has a prolonged and delayed action on the blood clotting time, its effects being analogous to the action of protamine insulin on the blood sugar. The heparin protamine preparation is completely insoluble and is inactive, and the injection of protamine neutralizes the effect of previously administered heparin.[13]

When chemically pure heparin is injected intravenously into animals or man, it causes no ill effects. Large or repeated doses may, however, sometimes induce a rise of temperature, but cause little rise in blood pressure or other untoward effects. Nor is the blood picture affected. The mechanism of heparin's anticoagulant action on whole blood and plasma appears to be independent of the presence and type of disease. The general opinion is that injected heparin soon passes from the blood and is stored in the tissues, chiefly the intestine, before being excreted in the urine.[9] Although Reinert and Winterstein[7] state that about 20 per cent. of the heparin injected intravenously appears in the urine, other workers[10, 14] contend that the injected substance appears to be destroyed in the body and not excreted in the fluid wastes.

Since heparin is inactive when given orally, it must be administered parenterally. Intramuscular injections even with relatively large doses of heparin, are practically without effect. The action of heparin is most rapid when it is given intravenously, the anticoagulating effect being obtained in a few minutes. The same effect is much slower—a matter of two to four hours—when given by any other route, such as the subcutaneous. The dose required for humans and animals is the same; one milligram of pure heparin per kilogram of body weight, injected intravenously, raises the coagulation time from a normal of about four and one-half minutes to from 30 to 45 minutes.

Crystalline barium heparin salt, which is apparently remarkably uniform in potency, has been adopted as a standard, each milligram of the crystals containing 100 units of anticoagulant activity.[18] Not all workers have accepted this standard, however, and for this reason many prefer to designate heparin dosage by milligram rather than by units.

This reference standard has proven useful, nevertheless, in the purification of heparin, which involves the standardization of the various fractions by testing their anticoagulant power. A simple method for comparing unknown samples with a standard preparation of pure heparin has been worked out and which takes into consideration the variable factors due to the normal difference of clotting time of the blood of individual animals.

Despite incomplete knowledge of its chemistry and physiology, heparin has already proven its value as an adjunct to the medical armamentarium. At present the most important use for this substance is in the prevention of coagulation during blood transfusions. In transfusions, heparin may be added either to the blood after it is withdrawn from the donor or it may be injected into the donor before blood is removed. The quantity given will determine the length of time noncoagulable blood may be obtained, the usual dose being one milligram per kilogram of body weight; this is usually from 70 to 75 mg., or approximately 1.5 cc. of a 5 per cent. solution. With this quantity the anticoagulant effect persists for from thirty to sixty minutes or more, allowing sufficient time for withdrawal of the needed blood.

Hedenius[19], one of the leading advocates of donor heparinization, believes that certain conditions should be fulfilled in an ideal blood transfusion: (1) the technic should be so simple that no lengthy preparation or large staff is needed, (2) it should not injure the donor or recipient, (3) it should be possible to transfuse the desired amount of blood, (4) it should be possible to perform the transfusion with the donor and recipient in separate rooms and, (5) whole blood should preferably be used. That the heparin blood transfusion method fulfills all of these requisites has been amply demonstrated by the work of Hedenius, and of Knoll and Schurch[20] and, in this country, by the investigations of Sappington.[21] This method allows the use of whole blood in its natural state and does not involve the use of any substance foreign to the body. Also, it has no anticoagulant effect on the recipient's blood, or any other disturbances. Furthermore, it has all of the advantages of the citrate methods, but none of the disadvantages, such as a possible excess of anticoagulant when the expected amount of blood is not obtained. An important consideration is the fact that the transfusion can be performed with any equipment available and the technic should therefore prove of value particularly in performing transfusions away from a hospital.

After surgical operations, few complications are more dreaded than the formation of blood clots in the blood vessels. When these occur, death is the usual, rapid result. Recent studies, however, have shown that by the use of heparin it may be possible to prevent thrombosis and blood clot embolism, both of which cause plugging of blood vessels. Although the heparin procedure has been tried extensively on animals and clinically tested on hundreds of patients, more work has has to be done before the method can be fully evaluated.[18] Nevertheless, the present indications are most promising. Animal experiments have shown that a large dose of heparin usually prevents or delays the formation of these dangerous trombi.[22]

Heparin had been clinically administered to more than four hundred patients at the time of Murray's London report. In no case was there evidence of phlebitis or thrombosis with embolism during or after the administration of heparin, nor were any toxic effects noted in any case.

The efficacy of this mode of treatment is well illustrated by the fact that after major operations, such as gastrectomy (partial removal of the stomach) there

were no deaths from pulmonary embolism in heparinized patients. This is quite remarkable in view of the fact that the usual death rate from such causes after this type of surgery ranges from two to seven per cent. However, all that heparin does is to prevent the formation or growth of a clot, it will not dissolve a blood clot or thrombus already formed. Heparin treatment has likewise proven its worth in treating other cases of pulmonary embolism and in cases of mesenteric thrombosis. Mesenteric thrombosis is almost always the cause of death after splenectomy, but the few patients treated with heparin survived. Although this phase of heparin's usefulness has not been explored, theoretical considerations indicate that this agent should be of value in the treatment of coronary and cerebrovascular thrombosis. Thus if the coronary artery was not occluded at the beginning of an attack of coronary thrombosis, heparin might be employed to prevent complete blocking or closing.

In a recent report, Olovson[25] emphasized the importance of early heparinization in cases of arterial embolism. His work shows that heparin treatment is most important before arteriotomy (surgical division of any artery) or before the onset of conservative treatment. Heparin, he states, should also be given after the operation and during conservative treatment until the danger of secondary thrombosis is over. Although the use of heparin causes the bleeding to last longer and to be more intense, no after-bleeding occurred and no hemotoma was found. A local hemostyptic had good effect and in no case of arteriotomy did secondary thrombosis occur.

From the report of Murray and Best,[24] which takes experimental limitations into consideration, it may be stated that the indications for the use of heparin are found in, (1) postoperative cases, (2) phlebitis, embolism and operations on blood vessels, (3) blood transfusions, and (4) coronary thrombosis and cerebrovascular thrombosis.

However, late in 1939, a possible new and very important use for heparin was suggested in two preliminary reports on the treatment of the almost invariably fatal disease, subacute bacterial endocarditis, an infection of the lining membrane of the heart. In the first report, that of Kelson and White,[26] heparin was used in combination with sulfapyridine, the powerful bactericidal drug; in the second, written by Friedman, Hamburger and Katz,[27] heparin is used alone. In both, heparin apparently is employed to prevent the settling out of fibrin and platelets (both blood-coagulating factors) which form a mass on the inflamed area and so obstruct the normal phagocytic action of the white cells against offending organisms. The use of sulfapyridine is an adjunct to the phagocyte activity in the first procedure; the blood itself is the bactericidal agent in the second. In the Kelson and White series of even cases, three survived after this therapy and at the time of the report had shown "striking improvement" and had been free of evidences of the disease for weeks. Both groups of investigators readily admit the danger of using heparin in such patients, but feel that the hopeless prognosis of the disease well warrants risk in selected, carefully supervised cases. Both groups likewise realize that their work is only of a preliminary, indicative nature, and that much more work on this heparin application is very necessary.

It should also be mentioned that heparin may be used for treating blood drawn for laboratory examination, and may advantageously replace citrate and oxalate ordinarily employed as an anticoagulant for such specimens.[28] If the syringe used is moistened with a ½ to 1 per cent. heparin solution the blood will remain fluid and permit more accurate chemical analyses and hematological examinations.[9]

There is no question but that heparin would be more widely studied and employed as a therapeutic agent were it not for one important factor; its high cost. No doubt increased interest will stimulate more use of this valuable agent and greater commercial production will make the price less prohibitive. A synthetic preparation will doubtlessly lower prices and research is tending in that direction. Meanwhile, continued study and use of heparin is constantly increasing the therapeutic value of this natural substance.

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(Continued from page 406)

A factor of which many lose sight is that Government enforcement agencies are always trying to extend their power so that they will be greater factors in the government of the country. This is the only way in which they can improve their positions. And to extend their power, it is necessary to interpret the law which they are enforcing as broadly as possible so as to affect as many people as possible.

COSMETIC MANUAL

The large volume of merchandise sold as deodorants may properly be divided into two major categories, namely, deodorants which act by absorbing or in some way neutralizing the odor of perspiration, and the so-called antiperspirants, which tend to stop or lessen the flow of perspiration. These major classifications refer to methods of operation; a type of classification which cuts across the large groupings refers to the physical form of the product. Thus, deodorant preparations, whether functioning by absorption or as astringents to retard the flow of perspiration, are available as liquids, powders, and pastes (or creams).

Fresh perspiration, although it sometimes has a strong odor, may be almost odorless; stale perspiration is definitely unpleasant. In most instances the odor is due at least in part to the presence of lower molecular weight fatty acids resulting from chemical changes in perspiration usually attributable to the action of bacteria. This odor may be covered, absorbed, or destroyed by substances reacting with the fatty acids. Eau de Cologne has long been used to cover perspiration and, because of its bergamot content, also has some antiseptic value in preventing bacterial action. Other newer perfume materials are said to have specific value in masking perspiration odors, but the mere covering of odors, although often completely effective, is the job of the perfumer, not of the cosmetic formulator.

Powder and paste preparations may also act by absorbing and holding malodorous sweat constituents so firmly that they no longer can be objectionable. Lard, petrolatum, and similar fatty materials take up oil-soluble substances, such as the fatty acids, in much the same way that butter absorbs ice-box odors or enfleurage greases absorb natural flower oils. Powder materials like colloidal clay may also act in the same way. Once the odor has been taken up, it is generally destroyed by other components of the mixture so that it cannot again be liberated. Zinc oxide is a highly favored neutralizing agent since it forms stable acid salts and has some antiseptic and astringent value. Precipitated chalk and other compounds acting as very mild alkalies are useful for neutralization. Boric acid, although not powerfully antiseptic, is widely and effectively utilized in deodorants. Zinc peroxide, and the corresponding magnesium compound, must be used in preparations not containing water, which immediately decomposes these peroxides, but they are powerful oxidizing agents for the destruction of perspiration. Sodium perborate is also useful.

Astringent mixtures act by precipitating protein, reversibly or irreversibly, thus partially closing pores and stopping the flow of perspiration at its source. Although these mixtures are occasionally responsible for local dermatitis because of the nature of their action, the local stoppage of perspiration itself is harmless. Perspiration which cannot escape by way of the armpits is liberated other from portions of the skin surface where rapid evaporation prevents odors from developing.

Concentrated alcohol, aluminum salts, formaldehyde, tannic acid, etc. are among the most effective astringents; ferric chloride, also extremely active, is too highly colored to be of much use while chromic acid, still occasionally recommended, is toxic and must be avoided. The formulas found in the literature generally specify aluminum chloride, sulfate or some other inorganic acid salt of aluminum and these are still the most widely used compounds because of their low cost and effectiveness. Nevertheless, they have the important disadvantage of adversely affecting fabrics with which they come into contact. Because of the chemical nature of aluminum, its salts readily break down into aluminum hydroxide and the free acid which then attacks cloth and tenders it. In the past we have suggested the use of commercial solutions of aluminum acetate and aluminum basic acetate for astringent deodorant purposes and they are cheap, quite effective, and harmless to cloth. Nevertheless, their strong odor of acetic acid is quite difficult to mask and for this reason they are not utilized. Quite recently, aluminum hydroxide in an active form, has been used in a deodorant paste. This preparation should be quite active and harmless. We have also suggested aluminum sulfocarbolate as a very

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By JOSEPH KALISH

soluble, odorless, safe material for astringent use. This compound is now extensively utilized, although its price is still necessarily rather high.

Tannic acid is little used, although it is a very effective astringent, because of its low stability in solution. The odor and drastic action of formaldehyde are such that it is not used in modern deodorants. On the other hand, a compound of formaldehyde and ammonia, hexamethylene tetramine, has several useful properties. It is a white, crystalline compound, easily soluble in water and alcohol. It is practically neutral and has no odor. When in contact with acid perspiration, however, this comppund breaks down into ammonia and formaldehyde. The ammonia combines with the fatty acids while the small amount of formaldehyde liberated acts as an astringent to stop perspiration. Since the decomposition of methenamin (a synonym) stops in the absence of acids, formaldehyde is never liberated in large enough amounts to give rise to an odor of its own. The methenamin itself, however, may be responsible for dermatitis, and must be used in small proportions.

The powders are generally simplest to make and are relatively the least effective and acceptable. Using talc, or mixtures containing colloidal clay, precipitated chalk, etc. as the base, zinc oxide or peroxide, boric acid, alum, may be the active ingredients. A certain proportion of zinc or other metallic stearate should be present to promote adhesion. Mixing should be thorough to make a homogeneous product and the powder must be free from lumps and obvious grittiness. Powders can be readily applied by means of a puff but when otherwise applied may not thoroughly cover the area to be protected.

Talc	40.0	45.0	45.0
Zinc oxide	20.0	15.0	
Zinc peroxide	10.0	5.0	10.0
Boric acid	20.0	30.0	30.0
Zinc stearate	10.0	5.0	15.0

Talc	48.0	90.0
Zinc peroxide	32.0	10.0
Boric acid	20.0	

Magnesium carbonate	10.0
Aluminum sulfate	10.0
Colloidal clay	20.0
Talc	60.0

Talc	50.0
Aluminum sulfate	15.0
Aluminum stearate	20.0
Colloidal clay	15.0

Alum	11.5
Tannic acid	11.5
Borax	17.0
Starch	60.0

Liquid astringents for deodorant purposes, generally based on aluminum chloride, should contain about one per cent. of boric acid to prevent precipitation that usually occurs in unbuffered solutions of aluminum salts. A small amount of alcohol may also be present to dissolve the perfume used and to accelerate evaporation.

Aluminum sulfate	8.0	5.0
Aluminum chloride	7.0	8.0
Boric acid	1.0	
Borax		0.5
Water	84.0	86.5

Aluminum sulfate	20.0	10.0
Aluminum chloride		10.0
Glycerin	3.0	4.0
Water	77.0	76.0

Aluminum chloride	15.0	16.0
Boric acid		0.5
Glycerin	3.0	
Water	82.0	83.5

Aluminum chloride	12.0
Boric acid	2.0
Formaldehyde	1.0
Alcohol	5.0
Water	80.0

Two examples, one based on glyceryl monostearate, and the other on a standard vanishing cream, are given of greaseless deodorant creams containing water. The only active ingredient in either case is methenamin, since astringents are usually acidic in nature and therefore break down vanishing creams. Even acid emulsifying agents are not completely satisfactory with strong precipitants such as aluminum salts.

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DECEPTIVE PACKAGING

WE MIGHT well approach our discussion of deceptive packages by first enumerating the reasons for the occurrence of deceptive packages.

Among these are:

1. The desire to achieve artistic designs or individuality of packages.
2. Commercial difficulties in the manufacture of containers.
3. Filling and packing difficulties.
4. Designing packages to give them certain required characteristics.
5. Packaging economy factors, such as use of same size container to pack same weights of various commodities of different densities.
6. The changing with fluctuations in cost of raw materials of put-in weights without changing the size of the package, or retail price.
7. Force of competition.
8. Deliberate intention to mislead and defraud.

In the field of artistic design, we find odd-shaped bottles. These are frequently packed in cartons. Such packing of such bottles in cartons results in a carton fill often as low as 25%. Where the bottle itself is not deceptive some manufacturers have recently endeavored to correct possible deception of the packages by printing a facsimile or reproduction of the bottle on the principal carton label. The Administration has indicated that if this is done in such a way as to show the exact size of the bottle, possibility of deception will be materially reduced. It is difficult to portray by picture or design the real size of a bottle; therefore, if this method is used to avoid possible deception, care should be taken to make the facsimile appear realistic. There should be no strip of panel or wording, or other matter super-imposed on the facsimile or reproduction which will destroy its facsimile effect and the label might declare the design to be a facsimile.

To illustrate a package which may be deceptive because of filling difficulties, I refer to excessively large cartons for packaging products in tubes, such as shaving creams, and tooth paste. To meet the filling difficulty, the industry has given careful consideration to the problem and has worked out a formula for the manufacture of reduced sizes of cartons which will more nearly fit the product, and is adapting its filling machinery so as to throw the tube into the new carton diagonally to accommodate the clipped end. The formula is known as the Bristol formula, because it was developed by William M. Bristol. The Food and Drug Administration has indicated that for the present it will take no exception to tubes of materials in cartons meeting the Bristol formula.

Another packaging difficulty concerns materials which settle after packing. The Administration feels that good trade practice demands reasonable attention to the settling of the product by the manufacturer to its normal state before shipment in interstate commerce, thus to prevent the appearance of slack filling. However, the Administration will take into account normal settling in determining whether action will be taken, provided the manufacturer has used due care in tamping or settling the product before shipment.

Illustrating the next category, namely, achieving a deceptive package because of the use of the same size container to pack various commodities, I will refer to the fact that a carton which, when packed with two ounces of sage will be full; but if packed with two ounces of ground nutmeg, it will be extremely slack-filled and therefore deceptive.

The conclusion is that packers probably will need to subordinate the advantages of uniformity of size of packages to the requirement of law prohibiting deception.

The State of North Dakota has devised a formula published in their Bulletin No. 40 of August, 1933, for determining whether bottles are deceptive. This formula is intended to contrast the true capacity with the apparent capacity, since bottles made of thick glass, or with panels sunk in the sides or bottoms, or bottles of odd shapes, or with long necks appear to have a greater capacity than they have actually.

I suggest to industry that the use of the North

By W. R. M. WHARTON*

Dakota formula may be valuable in studying glass container problems.

Some of the characteristics of false packing are very obviously deceptive; some of them become deceptive from a comparative standpoint; in some cases the shape of the package effects deception; others become deceptive when a manufacturer who has used a distinctive package changes the style and shape of that package; others become deceptive because of accidental faults in manufacturing process; and still others are recognized as deceptive because they depart from general trade practice. Now let us explore these categories.

In the category of obviously deceptive packages are those which are so packed as to pyramid the contents downward, each successive layer contained fewer pieces, until finally, at the bottom of the package the entire contents rests on a few pieces.

In the field of comparative deception, we shall consider the effect of enlarging the face of a package. The commercial tendency today in some of the food lines is to enlarge the face of packages, and also to reduce weight at the same time; for example, bars of chocolates of various kinds are apparently spreading longer and wider and, at the same time, thinner and thinner. One wonders how far the enlargement of the face of an article can proceed, at the expense of both its thickness and its original weight, before public indignation is aroused.

The shape of an article itself may throw the package into the deceptive class. I have in mind the molding of products in half shapes; as, for example, novelty candy items, one of which I have recently seen was molded in a shape to represent spools of cotton, but made in half shapes. These when placed in a nest of shredded cellophane, give the distinct appearance of being full shapes, or twice their actual size.

The category of deception by reason of change of style and shape of package is, in my judgment, an important one—one to which packers should give careful thought. The deceptive result may or may not be intentional. Let me illustrate this point: A package built in the form of a perfect cube measuring $2\frac{3}{4}''$ x $2\frac{3}{4}''$ x $2\frac{3}{4}''$ will contain approximately 21 cubic inches. This will hold a quarter of a pound of tea. The face, or principal label or display panel, will have a size represented by about $7\frac{1}{2}$ square inches.

Now a package built in rectangular form measuring 5" x 3" x $1\frac{1}{4}''$ will contain about 19 cubic inches. It will, if filled, contain slightly less than a quarter-pound of tea, but the face or display panel will represent 15 square inches, or twice the size of the cubical package. Thus, the package, if displayed by its face, will appear to be twice the size of the conventional article. If a packer of tea should change the style of his package from that of a cube to that of a rectangular shape and should, at the same time, reduce the put-in weight, he will achieve an appearance of a larger package than the original, and this may be deceptive.

Long-established trade practice has had its effect in fixing definite conceptions in the minds of consumers. With respect to many commodities, the public has become habituated to the purchase of articles in conventional amounts. In the case of coffee, the purchaser buys almost uniformly in units of pounds. The same is true of sugar, butter, and many other items. When a manufacturer departs from the trade practice of packing a commodity in sizes consistent with the practice of

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*Chief of Eastern District, Food and Drug Administration. Delivered March 27, before Packaging Conference, New York.

ASSAY OF OIL OF CHENOPODIUM

THE medicinal value of the oil of chenopodium, or American wormseed, appears to depend on its content of ascaridol, a peculiar and unique terpene derivative, which is generally formulated as an unsaturated peroxide, $C_{10}H_{16}O_2$.

The assay of the oil, however, is a matter of some difficulty. Well defined derivatives of ascaridol are unknown and its chemical reactions are rather obscure.

Of the proposed assay methods, we may note:

1. Nelson's method, adopted in the U. S. P., based on the solubility of ascaridol in 60% acetic acid. This can hardly be regarded as an analytical method, and, in practice, is of limited value. Schimmel & Co. regard the results as high: in our experience they seem to be, in general, below the true values. Furthermore, solubility in 60% acetic acid is not distinctive of ascaridol. With impure oils, the results might be quite illusive.
2. Paget (Analyst 1926, 170) proposed a method based on the ability of ascaridol, as a peroxide, to oxidize titanium trichloride to tetrachloride. The reaction was also studied by Broughton and Weiland (Assn. Off. Agr. Chem. 1930, 334) who found it satisfactory in practice.
3. Tusting Cocking and Hymans (Perf. Record 1930-80-148) found that, in acid solution, ascaridol will liberate iodine from potassium iodide and, under suitable precautions, a titration with thiosulfate is practical. The method was adopted in the B. P. 1932 and, in fact, with pure oils, the results seem to be approximately correct.

These two methods, however, suffer from the disadvantage that the basic reaction is obscure. In calculating the result, arbitrary factors have to be employed and obviously a factor suitable for a pure oil might be quite erroneous in the case of an impure one. Also, the titration of free iodine in the presence of terpenes or other unsaturated compounds must be regarded with suspicion.

In the endeavor to find some more definite reaction of ascaridol, I was led to a study of its behavior with bisulfite solution.

It is well known that many unsaturated aldehydes, ketones, acids, and lactones will yield sulfonates with sulfites or bisulfites. Dupont (Congr. App. Ch. 1912 25-357) has also shown that certain unsaturated alcohols also react, and under the conditions which he specified, ascaridol was found to react smoothly and apparently quantitatively.

With the bisulfite solutions stronger than molar the reaction may be violent, especially on heating. But with 0.25M or 0.5M bisulfite, ascaridol dissolves gradually, at ordinary temperature. Two molecules of bisulfite are required and very little sulfate is formed, which is remarkable, if ascaridol is really a peroxide. The sulfonate formed is a crystalline very soluble salt, not decomposable by acid or alkali at moderate temperatures.

In fact, in this reaction, ascaridol behaves more like a di-ether than a peroxide and just as ethylene oxide combines with bisulfite to form oxy-ethyl sulfonic acid, the ascaridol sulfonate may be a dioxymenthane-disulphonic acid.

For the assay of the oil I have found it convenient to use a flask of the cassia oil type, but of 250 cc. capacity. 10cc. of oil are placed in the flask with 150 cc. distilled water and 30 cc. of 2 N-bisulfite (C.P.). The flask is shaken thoroughly at frequent intervals for one or two

By DR. F. D. DODGE*

hours, or preferably on a shaking machine. Then 30 cc. more of 2 N bisulfite is added and shaking continued.

The flask may be kept at 30 to 40° if convenient. With mechanical agitation, 5 or 6 hours may be enough. If shaken by hand 2 working days may be required. Toward the end the flask may be safely heated to about 70°. When the undissolved oil ceases to diminish in volume, the flask is filled up with water and after settling, the volume of oil read.

The essential point is to determine when the extraction is complete. It is, hence, well to run several tests, with varying times, until the volume of residual oil is constant. A useful check also is to test the residual oil with Baeyer's ferrocyanide reagent which, if ascaridol is present, produces a white precipitate.

In using sodium or potassium bisulfite, a difficulty may arise from the production of a white precipitate in the residual oil, which makes exact reading of the volume impossible. For some reason, this does not occur if lithium bisulfite is used and, in fact, this reagent seems to work better in every way. It is easily prepared from the commercial lithium carbonate, and the strength determined by titration with iodine.

In any case, the bisulfite solution must be free from excess of $S O_2$. Indeed, a slight content of neutral sulfite is allowable. But if free $S O_2$ is present, the oil may darken or even react explosively.

The bisulfite reaction, of course, is not a peculiar property of ascaridol. Aldehydes and ketones which might react are, however, not likely to be present. Water soluble products, such as "carbitol," etc., should be looked for. Often a fractional distillation in vacuo may yield useful information. Following is a typical fractionation of an apparently pure oil:

Sample	S.G. at 25°	0.970	U. S. P. Assay	63.5% vol.
	O. R.	−5.80°	Bisulfite "	73.0% "
	R.I.	1.4764	Non-Volatile	0.85% "

75 cc. fractioned at 5 mm.

	S.G. 25°	*O.R.*	*R.I. 20°*	*Bisulfite Assay*
Sec. 1	12 cc. .886	−15.4	1.4805	19% Asc.
2	14 cc. .935	− 9.6	1.4779	50%
3	15 cc. .989	− 3.6	1.4743	86%
4	15.5 cc. 1.003	− 2.	1.4735	95%
5	16 cc. 1.013	− 0.9	1.4732	100%

Residual, 2 gm.

If the oil of wormseed is acetylated in the way customary for oils sandal or peppermint, a product is obtained with a high ester-value, indicating a content of approximately 70%—$C_{10}H_{16}O$ $(O\text{-}CO\text{-}CH_3)_2$. Uniform results, however, could not be obtained and the reaction is probably complicated.

On distillation with steam, ascaridol appears to be gradually hydrolyzed and the loss on distillation may amount to 20% or more.

Hydrolysis also occurs when ascaridol is shaken with dilute (1 to 2%) sulfuric acid, but the product of hydrolysis undergoes further reaction, leading to insoluble resins. Better results are obtained by using a sulfonic acid, such as paratoluene-sulfonic acid. The reaction is a very characteristic one, and might be developed into an assay method.

*Chief Chemist, Dodge & Olcott Company.

PREPARATION OF COSMETIC CREAMS

MANY cosmetic preparations contain vegetable oils in the form of emulsions, and their preparation requires much skill and experience, particularly when a first class product is desired. It is surprising how often cosmetic manufacturers prepare their creams without knowing the basic facts which govern the consistency, the stability and the appearance of the products. The action of the emulsifier is of the greatest importance as the uniformity and the stability of the product depends on it.

Emulsions are heterogeneous systems consisting of a continuous phase and a discontinous phase which are both coexistent because of the action of the emulsifying agent or emulsifier. The two main types of emulsions are: emulsions in which oil is dispersed in water, known as the oil-in-water type and emulsions in which water is dispersed in oil, known as the water-in-oil type. Without entering into the difficult discussion of the theory of emulsions it is more important to point out that different emulsifiers will produce different kinds of emulsions.

These emulsions have not only different physicochemical properties but also different physiological effects. As a rule soaps of sodium, potassium, ammonia and triethanolamine form oil-in-water emulsions, while soaps of calcium, magnesium, strontium or zinc form water-in-oil mixtures. Gum acacia, gum tragacanth and Irish moss stabilize oil-in-water emulsions and proteins act in the same manner. The reason for this is obviously their character as lyophilic colloids. Spermaceti, montan wax and beeswax tend to form emulsions of the opposite type. The efficiency of these emulsifying agents differs greatly and in many cases only careful work leads to the desired permanent and macrohomogeneous product.

Cold creams, now generally used as cleansing creams, are among the oldest known. These preparations belong to the water-in-oil type emulsions. Waxes, especially spermaceti and beeswax serve in this case as emulsifiers on account of their character as lyophobe colloids. To prepare a cold cream in the old way needs so much skill and experience that the simplifications which came to be known with the advent of the cleansing creams were greeted with satisfaction. Particularly important is the introduction of organic bases as emulsifiers which, in the form of soaps, have great emulsifying power. By the addition of triethanolamine, a cold cream can be prepared from beeswax, spermaceti, almond oil and water, or a cleansing cream from lanolin, beeswax, paraffin and oil. The quantity of triethanolamine used should be high because it serves not only to emulsify the fatty ingredients, but also aids in penetrating the pores and the cream is readily removed with water. If the proper quantity of the organic emulsifier is taken, hardly any difficulties during the manufacturing process will occur. The cold cream differs from the cleansing cream in the fact that the former is not an auxiliary to any beauty treatment but is treatment in itself of great efficacy, thanks to its great wax content. Since cold creams usually remain in contact with the skin for several hours, they should contain the proper skin conditioners and be easily absorbable. A good cream should have a good texture, be white, stable, and soothing in its action. The cold cream will moreover be refreshing in consequence of its high water content. This action, however, depends less upon the absolute water content, than upon the speed of evaporation of water on the skin. The size of the droplets of the dispersed water influences considerably the latter effect.

Another important type of cream is represented by the vanishing creams, which consist of a small quantity of fatty oil emulsified by a great quantity of stearate soap in water. While in earlier times the latter was prepared with potash or ammonia, at present the organic bases almost completely replace the inorganic ones. Other creams for special use are the fatty creams, distinguished by containing primarily fats of animal origin such as spermaceti, wool fat, sperm oil, etc., a combination which is particularly beneficial to the skin.

By LAWRENCE S. MALOWAN, Ph.D.

In all those types of creams where water is an integral part of the composition, the state of perfect emulsion is a matter of great importance. To achieve this the above mentioned emulsifiers are employed. Much experimental work has been done concerning the anion of these soap-like emulsifiers. This has led to the introduction of new organic compounds such as tri-iso propanolamine and mixed propanolamines. The role of the acidic part did not undergo so exhaustive an examination, but it has been found that a certain chemical treatment of vegetable oils changes the latter to very active components of emulsifiers. This property makes the addition of a foreign fatty acid for emulsifying purpose only quite unnecessary. Moreover the treated vegetable oils maintain their valuable properties as ingredients of ointments. It has been observed that olive oil, after long standing, acquires the capacity to form with aliphatic amines or ammonia and water perfectly white, milk-like emulsions. For practical purposes it was important to develop a procedure which led to a fatty oil of similar quality in a shorter time. The treatment consisted of heating the oil on a sand bath to 150° C. while passing a current of air over it for 72 hours. By this treatment and the oxidizing action of the air the viscosity of the oil rises somewhat but the outward appearance does not change materially. Against the expectation the acid number of the treated oil rises only to a small extent. We found in two different experiments for olive oil, after treatment, an acid number of 4, 0 and 3, 8. Any kind of oil submitted to this treatment will acquire the remarkable property of being easily emulsified and of emulsifying other lipoids easily, but the best results were obtained from olive and sweet almond oil. Two cc. of such oils give with 0.25 cc. ammonia, one cc. alcohol, and 25 cc. water a perfectly white, stable, homogeneous, and milk-like emulsion. The same effect, but perhaps more complete, is produced by the organic bases triethanolamine and morpholine. Such an oxidized oil is a perfect addition to any fatty composition as it combines with its soothing quality a strong emulsifying power. The advantages of the use of such treated fatty oil in cosmetic preparations will be shown by the following examples.

A cold cream may be prepared using spermaceti 80 g., beeswax 70 g., sweet almond oil 550 g., oxidized olive oil 50 g., triethanolamine 5 g., and water, 250 g. The procedure for the preparation of the cold cream is the usual one, with the only difference that the water is mixed separately with the emulsifying mixture of olive oil and triethanolamine, then the resulting white emulsion is added to the molten fat and stirred till the mass is completely cold. The result is a cream of modern and perfect texture, perfect stability and in quality equal to the known products in the market. As another example, we mention the preparation of a lanolin cream. The latter is made by mixing anhydrous lanolin 450 g. with beeswax 300 g., and heating both to the melting point. Thereupon 450 g. almond oil are added to the molten mass. Mix 150 g. oxidized olive oil with 5 g. of triethanolamine and 900 g. of distilled water. This white, thin emulsion is incorporated into the melted fats, and stirred until completely cool. A lanolin cream prepared in this way has lost much of the usual stiffness and stickiness characteristic of such creams. It may be spread softly and closely resembles a vanishing cream. The preparation of the latter may serve as a last example.

In one container were heated to 70° C., 500 g. stearic acid, 45 g. lanolin and 30 g. oxidized olive oil. Heat to boiling 25 g. triethanolamine and 1200 g. water and the melted fatty acid-mixture is added with constant stirring and cooling until a heavy, smooth cream was obtained.

These examples show that the addition of vegetable oil treated in the described way improves the quality of any cream preparation. Moreover it simplifies considerably the manufacturing process as in this way the water binding power of the fatty mixture is improved quite remarkably, the emulsification is made easier and the cosmetic effect enhanced.

TINTED POWDER BASES

By PAUL SARENSEN

While there are many different formulas for powder-bases and foundation-lotions, each has its particular advantage, or disadvantage. The very fluid, or thin kinds are usually formulated with some form of alcoholic solution. This thin powder-base usually is too drying to the skin. The very thick, or more viscous type drags, etc. The third cake type, appears to have more disadvantages than benefits. It usually has to be mixed with water on a sponge before application, and dries on the face, giving a chalky appearance. Sometimesit has to be dusted off the face with a brisk rubbing process.

A good powder-base should do these three things. First, it should be a foundation for powder, and have enough moisture to cause the powder to cling to the face over a long period of time. Second, it should act as a protective film on the face. Third, it should serve as a universal cover-up, for demarcations of make-up, blemishes, scars and freckles.

Up to now, very few have added vivid, or varied color combinations, to this type of powder-base; however, the entire make-up is definitely improved by this additional coloring. The teeth appear whiter, and the eyes seem much brighter. A powder-base of this caliber can also be used for a special sun-tan-make-up-effect.

The formula below is a very good one.

Vanishing cream (pearly)	60.0
Glycerine	15.0
Face Powder (Dark, Rose Rachelle)	22.5
Prepared Karaya Gum Solution	02.0
Perfume	00.5

Prepare the vanishing cream in the usual manner. Add the glycerine and mix well, then add the perfume and the face powder. Next add the Karaya gum solution, that has been previously prepared, with correct preservative. This should be thin enough to pour freely. Now, run the entire mixture through a roller mill.

A liquid cosmetic emulsion of the triethanolamine type, with a low pH, may be substituted for the pearly vanishing cream. If so, the viscosity may be reduced, but can be restored by adding additional titanium dioxide, until desired thickness is achieved. The face powder called for in this formula is like the face powder in the finished package. The perfume in the powder should correspond with the perfume in the formula. The colors are the usual cosmetic pink, and cosmetic ochre.

The color of the finished product may be varied to make many different shades. However, a mixture containing a large amount of the cosmetic pink color is recommended for people with a yellow, or sallow complexion, while the combination of these two colorings, with but very little cosmetic pink, is flattering to a pink complexion. A more liquid powder-base is offered below:

Calcium Carbonate	8.0
Zinc Oxide	10.0
Glycerine	06.0
Alcohol	15.0
Perfume	0.1
Water, to make	100.0

Color, to suit, usually Pink and Ochre combinations.

Procedure: As usual for formula of this type, filter, or rub through sieve.

Deceptive Packaging

(*Continued from page 413*)

the trade, and delivers in such a package a lesser quantity, the package is likely to be deceptive because of slack-fill, the shape of the package, the area of its face, or for other reasons. This follows, because the purchaser, having been accustomed to buy at conventional weights, will naturally assume conventional weights are being received, unless the package itself, by reason of its appearance, indicates that a lesser amount is contained.

I suggest that packers of foods, drugs, and cosmetics carefully study their packages from the standpoint of possible deception. I suggest that you apply a little fundamental arithmetic and good common sense to the problem. Be sure that packages are filled as full as commercially possible. Make a specific study of each package, including calculations of cubic capacity, fill, and all the

elements that might make your packages misleading. If you find that your packages are not slack-filled, are not deceptively packed, the packages themselves are not deceptive, then you have nothing to fear from the enforcement of the misleading provision of the Food, Drug, and Cosmetic Act. On the other hand, if you have any doubt, resolve this doubt in favor of the consumer, and make the necessary changes to correct the condition. Remember that the consumers are guided by rule of first impression in making purchases, and expect to be dealt with fairly, that declaration of quantity no matter how conspicuous will not correct a deceptive package.

The Chief of the Food and Drug Administration, W. G. Campbell, says that common sense and the rule of reason will be applied in enforcing the misleading package section of the Food, Drug, and Cosmetic Act. Mr. Campbell is aware of, and is sympathetic with, the packaging and filling difficulties of the industries. He has no intention of being unreasonable. He does not expect the impossible. He knows the advantage of artistic design and individuality of packages, and will not interfere with such packages unless they are deceptive. He says too, that the Administration is ready at all times to comment on labels and packages and to discuss commercial difficulties with the industries. He intends to give the industries time to correct conditions which result in the distribution of misleading packages if those industries are engaged diligently in the undertaking. Mr. Campbell says further that in the final analysis each package stands on its own individual merits, and the courts will have to determine whether packages are, or are not deceptive, and that, therefore, definite tolerances, leeways, allowances or rules and regulations on the subject cannot be made. He feels that if members of the industry will study the problem from the standpoint of their own products, make the necessary tests of their own containers and packages, and give the matter the attention it deserves from the standpoint of fair dealing with the public, industry can, without serious difficulty, fully meet this provision of the law

Cosmetic Manual

(*Continued from page 411*)

Glyceryl monostearate	15.0		
Spermaceti	5.0		
Methenamin	3.0		
Glycerin	8.0		
Water	69.0		
Stearic acid	20.0		
Cetyl alcohol	1.0		
Potassium hydroxide	1.0		
Methanamin	3.5		
Glycerin	6.0		
Water	68.5		
Petrolatum	65.0	62.0	
Boric acid	10.0	15.0	
Benzoic acid		3.0	
Magnesium stearate	10.0		
Zinc oxide	10.0	20.0	
Magnesium carbonate	5.0		
Petrolatum	55.0	81.0	80.0
Lanolin		10.0	4.0
Hydrogenated oil	20.0		
Benzoic acid	5.0	3.0	4.0
Zinc oxide	20.0	6.0	12.0
Beeswax	6.0		
Hydrogenated oil	54.0		
Benzoic acid	6.0		
Zinc oxide	19.0		
Glycerin	15.0		
Benzoinated lard	90.0		
Lanolin	1.0		
Benzoic acid	1.5		
Zinc oxide	6.5		

Pastes are the more common form of consistent deodorants and these may be either of the absorption or the astringent type. Active ingredients are carefully and thoroughly ground with the base.

Medicinal Exports Up 60%

C. C. Concannon, chief, Chemical Division, Department of Commerce, has reported that practically every country in the world is now looking to the United States for a larger share of its medicinal requirements, including the colonies of European countries. During February, 1940, exports of medicinals aggregated $2,246,000, bringing the total for the six-month period ending with the month to $14,000,000, a gain of approximately 60 per cent. over the $8,867,000 during the six months ended February 28, 1939. Compared with February, 1939, during which the total value of medicinal exports was $1,483,000, all types of medicinals have shared in the gains recorded during the current February. Shipments of non-proprietaries during these periods increased in value from $473,000 to $853,000 and biologics from $179,360 or $337,650.

To Mine Quicksilver in California

A syndicate, headed by F. Eugene Newbold, of W. H. Newbold's Sons & Co., Philadelphia, has been formed for the operation of the 100-year old New Almaden quicksilver mines, thirteen miles southwest of San Jose, in Santa Clara County, Calif.

The group, New Almaden, Inc., has recorded an option and conditional thirty-five year lease from the owners, Mary Lord Sexton and William Lord Sexton of Philadelphia.

A registration statement filed with the Securities Exchange Commission emphasizing that the venture is "very speculative in character" covers the proposed offering of 50,000 shares of $10-par common stock to raise initial capital of $500,000, required to lease and operate the mine.

The New Almaden Mine was named after the famous Almaden mine in Spain which has been worked for over 2,000 years, by the Romans, the Moors, and in modern times by the Spainards. New Almaden is said to be the fourth most productive quicksilver deposit in the world with production of more than 1,000,000 flasks.

STURDY TUBES *for Oil Colors*

NEW England Collapsible Tubes are playing an increasingly important part in the successful merchandising of oil colors. Super tough and rigid, they offer the ideal container for these and many other products subjected to unusually hard handling by users. Their extra strength is the result of our exclusive Sheffield Process . . an improved method of mixing, melting and tempering the metals.

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MERCHANDISING NEWS and PACKAGING NOTES

THE COSMETIC TREND: Perfumers seem to have embarked upon a rush of flower scented eau de colognes; this time not the mildly scented kind, but the heavy old fashioned type with lilac, carnation, lavender, honey suckle, gardenia, etc. added. For once there is nothing subtle about these combinations and, at the present time at least, they sell although buyers express some doubt whether the fad will last. For the rest perfume sales seem to have become a matter of attractive packaging, largely due possible to an attempt to cash in on the Easter and post-Easter trade. The rage for eau de colognes also extends to soaps, powders, talcums, sachets and other articles. While part of this flurry in Eau de Colognes may be the result of fashion publicity, it seems to point the way, in the opinion of shrewd forecasters of perfume trends, to a definite re-establishment of the heavier scents in public favor. Buyers generally will welcome such a development, because the sale of these most often coincides with a demand for the higher priced bouquets. Anyhow, these heavy scents (combinations and straight flowers) hold real possibilities and manufacturers, no doubt, will back them for their summer and fall novelties.

There appear to be two distinct color trends in make-up for the Spring and early Summer—one toward the very dark colors to be worn as a dramatic accent for the very fashionable neutral beiges and grays, and the other for the pure reds (not the pale pinks of last Spring), but good, clear light reds, and also the medium soft reds (not the dashing winter red-reds), but clear, soft reds for the pastels. With Spring delayed, it is difficult to ascertain at the moment whether the very dark shades will be well received by the consumer. However, strong, vital colors in fashion will need dramatic make-up colors as a complement and it may be that the very dark shades will be well received. In spite of the fact that women today are extremely high style minded, it is still not as easy as one may think to sell them something which is not becoming or doesn't "do" something for them, as was evidenced by the apparent failure of the demure, pale pink make-ups of last Spring. The dark make-ups have up until now taken a much better hold of course, since they do so much more to dramatize a woman's appearance. For the more conservative women, the clear light reds and medium soft reds will fill the bill. Later on in the season yellow and orangey reds are likely to be favored.

Their eventual revival will not cause much trouble in the buying end of the market as hand to mouth buying is now the rule with most buyers, although for different reasons than the shifting mood of their customers. Production ratios in the laboratories, at the other hand, need watching as they may require some adjustment.

The comparatively favorable beginning early in the year unfortunately has not been maintained. One can not speak exactly of a setback but the weather has not been favorable, especially during the weeks before Easter. Some weeks showed heavy drops against the preceding ones. Easter brought the usual gift purchases but little real spring trade. This, buyers hope, will be deferred merely to the start of the warm weather. What the counters just now need more than anything is volume builders, either in the form of a real good novelty or attractively priced combination sets of which fortunately a fair number is available. Stores, concentrating upon them, seem to have good results and they make still good material for special advertised promotions. Doubt is expressed in some quarters whether the recent tendency of making all year articles of seasonal items has not been a mistake. While certainly modifying the usual in-between season sales drop it has lowered the interest into the seasonal openings. This condition is bound to continue until something new has been found to take their place. Suggested are: regular changes in the design of cosmetic carriers, pouches, seaside kits, containers of lipsticks, vanities etc. and a better planning of the release dates of novelties to coincide with the start of the season.

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OLD SPICE: The April issue of "Fortune" carries a story on "Early American Old Spice" which is subtitled, "The record of a merchant of toiletries: $77,000 gross in 1937, $770,000 in 1938, $3,100,000 in 1939."

The article features this "Fortune" profit and loss statement for 1939 which is reprinted here because "Fortune's" estimates of the Shulton business will interest our readers. The story also goes on to say that, "Old Spice was sold only in the last four months of 1937. Its gross was $77,000, and the private-label goods had brought in $249,000. The Old Spice line, in the beginning, consisted of soap, toilet water, perfume, bath salts, dusting powder, and one combination package, the vanity box, which sold for $3.50. Most of the other items sold at $1. Toilet water was the best seller and has remained at the head of the list ever since.

"In the spring of 1938 the expansion began, chiefly with the addition of a men's line. The most striking item of this line was shaving soap in a mug, marked with a reproduction of the trading ship *Grand Turk* (page 79). This caught on quickly, chiefly as a gift. The total business for 1938 was $982,000, with $770,000 credited to Old Spice.

"The gross sales for Old Spice in 1939 were $3,100,000. The men's line, last to be introduced, outdistanced most of Early American's predominantly feminine items by selling $700,000 worth, 22 per cent. of the gross. Best

PROFIT AND LOSS—EARLY AMERICAN*

(As Mr. Schultz might have reported, for 1939 in the modern American corporate style, to widely scattered shareholders, if, indeed, he had had any. Shulton, Inc., however, is closely held. So these are FORTUNE *estimates.)*

Approximately 5,600 department stores, specialty shops, apothecaries, etc., paid us, for Old Spice toiletries, the sum of	$3,100,000.00
Some of our old and faithful customers bought our usual line of special toiletries and paid us another	200,000.00
Total monies taken in	$3,300,000.00
We paid out $329,000 to our loyal Hoboken box and packaging factory workers, and the sum of $1,361,000 for Old Spice ingredients supplied by our various manufacturing chemists and for package materials, a total for all manufacturing costs of	$1,690,000.00
For advertising we spent $211,000 in newspapers and in such trade magazines as *Harper's Bazaar, Vogue, Toilet Requisites,* etc., $46,000 for our share of cooperative department-store newspaper advertising, $71,000 for literature, displays, etc., the considerable sum of $66,000 for personable young women who are called demonstrators by department stores—a grand total of	394,000.00
Direct sales expense, from twenty to thirty regular salesmen and their expenses of traveling and entertaining buyers, amounted to	250,000.00
Other overhead expenses (officers' salaries, office rent, legal fees, designers, freight, accountants, depreciation, etc.) were	480,000.00
Total monies paid out	$2,814,000.00
Monies taken in, less monies paid out, equals our profit before income taxes	$ 486,000.00

*Toiletries manufacturers hate to tell about costs, hate to talk about profits. Mr. Schultz is no exception. These estimates, based on a known gross, can be accepted plus or minus 10 per cent. And although all of the Old Spice items do not work out the same way, here's a more than fair estimated breakdown of the four-ounce bottle of toilet water that retails for $1.

Ingredients—water, perfume, and alcohol	$0.17
The bottle, etc.	.13
Advertising, selling, and overhead expenses	.21
Total cost to Mr. Schultz	$0.51

He sells this to the store for about sixty cents, making nine cents net. He makes less on soap, more on powder and perfumes. But Mr. Schultz is in a business that furnishes either silk or sackcloth to its proprietors. Without sufficient volume the third item above could eat up not only profits but reserves. You cannot buy Shulton, Inc. securities, but there are probably a thousand unknown toiletries firms that will sell you a half interest for $2,500. It's that kind of business.

60%

of women working for the West's greatest bank use compacts made by Scovill customers

Interviewing women employees at the main San Francisco and Oakland branches of the Bank of America, our investigators found that 60% use compacts made by firms that have come to Scovill for containers for one or more items in their line.

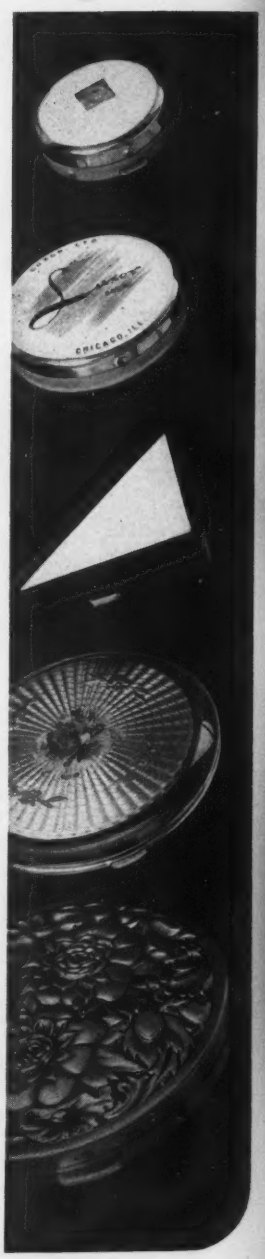
Our samplings of representative groups of women have been made in New York, North Carolina, Louisiana, and now California. Everywhere the majority use cosmetics made by Scovill customers.

Reasons for Scovill's Coast-to-Coast Predominance

Pioneering of new and more salable features in containers and closures, is one of the reasons why cosmetic leaders buy from Scovill. Among recent developments are the "No-Kap" closure, the liquid-and-scratch-resistant "Indurite" finish for aluminum products, and an economical process for reproducing multi-colors on metal.

Practical help in solving puzzles of design or production, is another important reason. Scovill's engineers can help you work out practical, economical production from an idea, blueprint or model. And Scovill's unusual mechanical facilities, its thorough experience with all kinds of metal and metal-plastic combinations, often mean lower cost manufacturing.

Whether you're thinking of adding a new item to your regular line or seeking to produce your regular items more economically, call in a representative from the nearest Scovill office listed below. He will gladly show you interesting jobs done for other famous firms throughout the cosmetic industry.



Scovill
MANUFACTURING COMPANY
WATERBURY, CONN.

Drug and Cosmetic Container Division
69 MILL STREET, WATERBURY, CONN.

Boston, Providence, New York, Philadelphia, Syracuse, Pittsburgh, Chicago, Cincinnati, San Francisco, Los Angeles.
IN CANADA: 334 King Street, East, Toronto, Ontario.

HAMPDEN SALES

Hampden has created a package which is called the "Cosmegenics" kit. The kit contains a range of fifteen colors, each of which are planned to blend with the other and all in the same handy stick form. Included in the kit are four foundation shades, two rouges, three lipsticks, four eyeshadows, two mascaras, one eyebrow pencil, a lip brush and a mascara brush. With this generous palette of colors, women can create the particular type of make-up desired either for daytime or evening.

HAMPDEN SALES

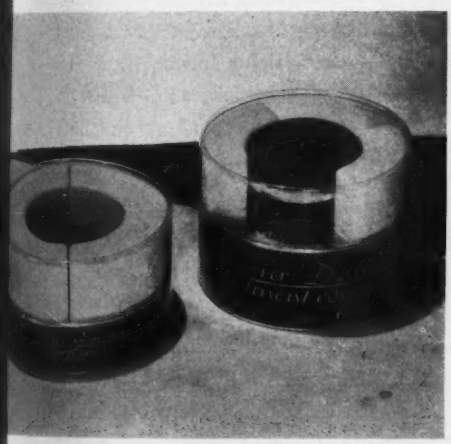
BOURJOIS

An attractive Mother's Day gift is the Bourjois Evening in Paris standard $1.10 perfume in a special attractive Mother's Day wrap.

BOURJOIS

MARIA DANICA

Maria Danica's beauty routine consists of only one cream and two sizable cakes of soap, all assembled in one small package. The soap cakes are shaped so that they fit around the jar and are also convenient to handle. A nice big fluffy sponge is also included. An attractive transparent cylinder holds the trio, the base of which is black with gold lettering.



MARIA DANICA

HUFA COSMETIC CO.

A new lipstick is being marketed by the Hufa Cosmetic Co. The smart, attractive moulded container has a mirror on the outside, large enough to allow a view of lips and face. The case is available in white, black, green or red, and the lipstick is offered in five shades. The de luxe models have a charm attached.

HUFA COSMETIC CO.

JOHN BRADSHAW CO.

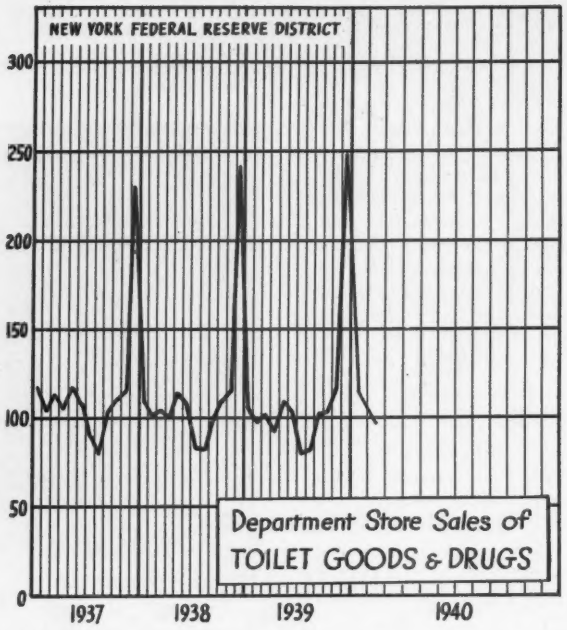
The John Bradshaw Co. has added several interesting items to its Woodbine toiletries line, the packages for which were inspired by Old New England. "The Governor" is a wooden container holding talcum delicately scented with Woodbine, and the Cape Cod Caster also holds talcum. The Log Box contains soap.

JOHN BRADSHAW CO.

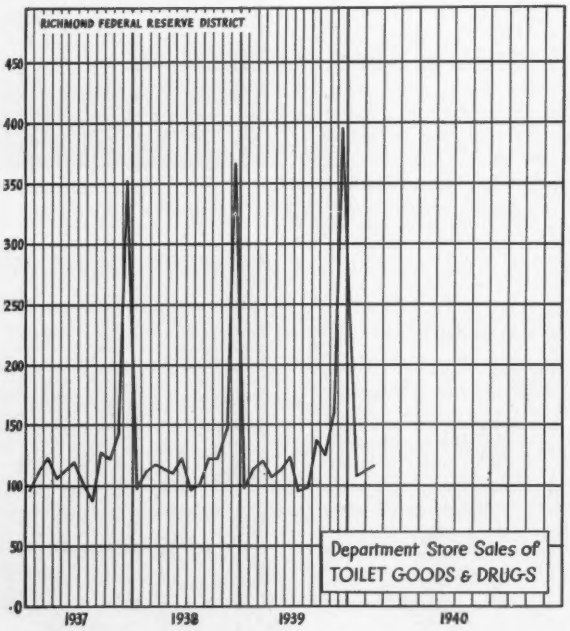
ROGER & GALLET

Roger & Gallet's contribution toward Mother's Day is a combination package consisting of Violette de Parme Eau de Toilette and a bottle of Violette de Parme talc. The handsome picture on the cover of the box is detachable and may be used for framing.

ROGER & GALLET



Sales of toilet articles and drug sundries by department stores in the New York Federal Reserve District were 0.3 per cent. less in February 1940 than in the same month of 1939. This corresponds to unadjusted index numbers of 97.2 for February 1940, 115.2 for January 1940, and 97.5 for February 1939.



Sales of toilet articles and preparations by department stores in Baltimore were 8 per cent. higher, in Washington were 3 per cent. lower, and in the whole Richmond Federal Reserve District averaged 2 per cent. higher in February 1940 than in the same month of 1939. Unadjusted index numbers for the whole district were 116.4 for February 1940, 107.8 for January 1940, and 114.1 for February 1939.

seller of all was toilet water, 26 per cent. of the total, or $800,000. Dusting and talcum-powder sales came to $617,000, sachet, bath salts, and perfume combined to about $450,000. Early American products in sets, which almost always contain one of each principal item, grossed about $350,000, of which $300,000 was accounted for by the two best-selling $1 sets."

BARE KNEE MAKE-UP KIT: Of all things! Elizabeth Arden has devised a little kit to match bare knee costumes, in buttercup yellow, Tanager red, hunter green and navy blue. It looks like a little flannel purse, but it contains a small tube of eight hour cream, to help smooth the skin on the knees which is apt to be rough, and it should be soft and smooth before applying make-up. Then, a large tube of Velva beauty film in an appropriate shade to make knees look natural and more shapely. It takes only a minute or two to put it on, including the backs of the knees. After the Beauty Film is on, you find rouge—yes, cream rouge, just a touch to make the knee caps faintly rosy. And just because women aren't completely practical for spring, there is surprise and fun in the Bare Knee Kit, too—beauty marks—little black moons or stars, to plant on the knee cap.

GOOD GROOMING: Reader-Editor Report No. 31, the subject matter of which is good grooming, has been compiled and published by the Research Department of the Crowell-Collier Publishing Co. It gives the good grooming habits of 1,801 selected readers and includes such subjects as Bathing, Care of Face, Care of Hands, Shampooing, Teeth and Mouth, Care of Eyes, Perspiration, and Superfluous Hair. It reveals, for example, that 60 per cent. of the women replying use a bath scent or water softener in the bath and that 83 per cent. use a bath or talcum powder afterwards. Cleansing cream is used by 77 per cent. and protective cream by 66 per cent. and the leading brand preferences are Pond's, Woodbury, Lady Esther and Pond's, Jergen's, Woodbury, respectively. Hand creams or lotions are used by 96 per cent., with Jergens, Hinds and Campana the leaders. Tooth paste leads the dentifrice preferences with 56 per cent., while 46 per cent. use powder, and 21 per cent. liquid. Ipana, Colgate and Pepsodent lead the pastes; Dr. Lyon's, Calox and Pepsodent, the powders; while 90 per cent. of those using liquid use Teel. All of those answering the question concerning perspirations reported that they used deodorant, antiperspirant or both. Mum, Odorono and Arrid lead in that order. They like their deodorants in cream form and their anti-perspirants in powder form.

CONSUMER ANALYSIS: The Milwaukee Journal's 1940 Consumer Analysis of the Greater Milwaukee Market indicates that the families of that city buy most of their toilet requisites in department stores and independent drug stores, 32.3 per cent. favoring the former and 31.4 per cent., the latter. Chain drug stores get 18.6 per cent. of the business and 5 & 10 cent stores, 17.7 per cent. Most of the drug products are purchased in independent drug stores, a total of 59.4 per cent. of the families reporting favoring that outlet. Chain drug stores are second with 29.5 per cent., department stores third with 9.6 per cent., and 5 & 10 cent stores last with 1.5 per cent.

According to this survey, "the percentage of Milwaukee men who use regular shaving cream has decreased steadily over a period of years. This year 42.9 per cent buy this product as compared with 44.4 per cent in 1939. Palmolive, Lifebuoy and Williams are the leading brands.

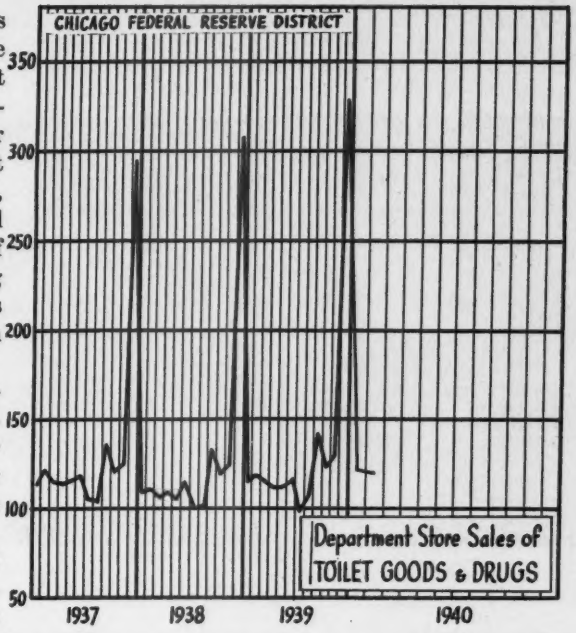
"After remaining practically stationary between 18.5 and 18.9 per cent. during the past three years, the popularity of brushless cream this year has mounted to 20.6 per cent." Barbasol, Burma Shave, Molle and Palmolive are the leading brands.

"Tooth paste continues to diminish in consumer use this year. In 1938, 65 per cent. of all Milwaukee families bought tooth paste and the use dropped to 60.8 per cent. in 1939. This year 59.2 per cent. purchased tooth paste regularly." Colgate, Pepsodent and Ipana are the leading brands.

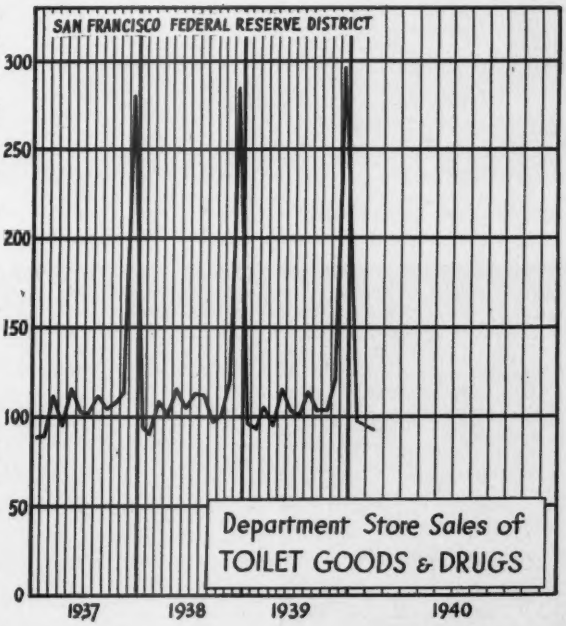
"In 1939 the popularity of tooth powder reached a high of 58.9 per cent., while this year it is used by 52.4 per cent. of all families." Dr. Lyon's is the overwhelming favorite. 22.9 per cent. of Milwaukee families use liquid dentifrice, according to this report, with Teel getting 92.8 per cent. of the business. 57.8 per cent. use mouthwash, with Listerine getting about half the business.

About 47 per cent. of the Milwaukee families reporting use liquid shampoo, with Drene, Fitch and Watkins the leading brands.

CIRCUS SPIRIT: With all the gaiety of a carnival, Revlon's two new shades for Spring in nail enamel and lipstick have been announced, "Pink Lemonade" and Red Punch." "Come one! Come all! Board the bandwagon—join the greatest color show on earth starring Pink Lemonade and Red Punch" read large broadsides in true circus spirit. Store-wide promotions from coast to coast will be held in leading department stores by staging Pink Lemonade and Red Punch parties and fashion shows. Real pink lemonade and red punch drinks will be served. Recipes for making these in the true Revlon colors have been developed by Revlon for the convenience of the stores. To further popularize these colors, Revlon has planned a tie-up with the Circus.



Sales of toilet goods and drugs by department stores in the Chicago Federal Reserve District were 1.1 per cent. greater in February 1940 than in the same month of 1939. Corresponding unadjusted index numbers were 120.3 for February 1940, 122.0 for January 1940, and 119.0 for February 1939.



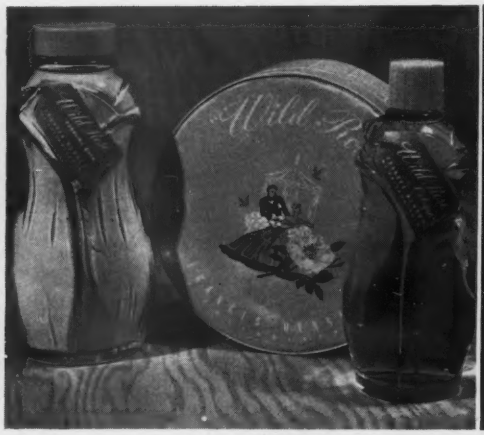
Sales of toilet articles and drug sundries by department stores in Los Angeles increased one per cent., in San Francisco declined 7 per cent., in the Pacific Northwest increased 5 per cent., and averaged one per cent. less for the whole San Francisco Federal Reserve District for February 1940 compared with February 1939. Unadjusted index numbers for the whole district were 92.9 for February 1940, 97.8 for January 1940, and 93.5 for February 1939.

MARY DUNHILL

GUERLAIN

HU

CHARBERT



FRANCES DENNEY

CARDIN

YARDLEY

GABILLA

BARBARA BA

LA CROSS

HARRY SCHWARTZ

HOUBIGANT

MARY DUNHILL

Mary Dunhill has assembled a trio of beauty aids—Devonshire cleansing cream, hand cream, and texture cream, and placed them in a handsome moulded stand in pink to match the jars and bottle top.

GUERLAIN

Guerlain now has a $5 size of toilet water in all the popular fragrances such as Shalimar, Heure Bleue, Vol de Nuit, Coque d'Or, Liu, Mitsouko, Sous le Vent and Vega. The bottle is the same type as the $10 size and an atomizer top is included in the package. Guerlain also announces Heure Bleue and Mitsouko perfumes in a $10 size containing 1¼ ounces.

HUSH

The new Hush cream deodorant jar comes in three colors—pink, blue and white, and in two sizes, 1½ and 2½ ounce. The new jar is streamlined and attractive.

LA CROSS

La Cross has created a large-size bottle for its glycerated nail polish remover. The large bottle is shaped to suggest two of the smaller ones, welded together, with the same streamlined effect ringed about by a series of indentations. This flask holds more than one and a half times the amount contained in the smaller "Drop-It-On" flask.

DORIN

A triple perfume combination is offered by Dorin in its "Corsachet". Corsachet includes a perfumed corsage, which makes a very desirable fashion accessory; a matching sachet conveniently looped for hangers, and its attractive beribboned holder—a transparent case which can be used for small accessories.

CHARBERT

The Drumset eau de cologne is Charbert's translation into toiletries of the present military mode in fashions. Three one-ounce drum-bottles of eau de cologne banded in red, white and blue ribbon, in three different odors.

FRANCES DENNEY

The wild rose was the inspiration for Frances Denney's new group of eight items including a large and small size cologne, dusting powder, Bubbling Over, lipstick, creme and compact rouge, and face powder, in attractive, colorful packages.

CARDINAL

Cardinal's "Tri-Cologne" set consists of three 2-ounce bottles of eau de cologne—Spice, Apple Blossom, and Bouquet, encased in a handsome gilt finish metal filigree base. Each set is packed in an attractive gold and buff gift box.

HARRY SCHWARTZ

"Brush-Kleen" is being introduced by Harry Schwartz, distributor of Brush-komb. Brush-Kleen is a soapless cleaner for all types of hair brushes. It is delightfully scented and is said to clean bristles leaving the hair brush clean and sparkling.

STUART PRODUCTS

Stuart Products presents an interesting little novelty in the form of a miniature floor lamp. Three small bottles of fragrant perfume appear within the transparent lamp shade. To use them, just draw down the lamp pull and the disc on which the bottles rest slides down.

YARDLEY

Yardley is offering for a limited time, a special package containing a bottle of the new Bond Street toilet water and a regular size box of English complexion powder (perfumed with Bond Street). This combination sells for the price of the face powder alone.

GABILLA

Gabilla's newest "compose" is called Reve a Deux (a dream for two). It is a heady, exotic fragrance, available in two sizes, 2 oz. and 4½ oz.

BARBARA BATES

Barbara Bates is introducing "Jewel Appeal" manicure sets, complete with six preparations and accessories including the "Jewel-Appeal" nail polishes. Illustrated is the lovely "Miranda" set.

HOUBIGANT

Houbigant adds to the increasing interest in romantic florals this year with a true-to-the-flower reproduction of Wistaria in Eau Florale Concentree. This is a light, exquisite fragrance.

SOLON PALMER

Solon Palmer's "Dress Parade" cologne carries the same fragrance as the Dress Parade perfume but on a lighter note. The attractive military bottle topped with a black-stopper holds four ounces.

DORIN

STUART PRODUCTS CO.

SOLON PALMER

SACHET NOVELTIES: Sachets in an entirely new and fascinating guise come from the Garry House of Sachet. Imagine miniature lingerie delicately sacheted with sweet clover to be tucked into lingerie drawers! Garry has developed a ridiculously small pantie and bra set, a tiny bed jacket trimmed with adorable white ruching, and a satin nightgown. So much for the "modern" type of lingerie. Even more amusing is a Grandma's old-fashioned corset cover and drawers, nightgown, and a Gay Nineties petticoat. All of these infinitesimal undies are beautifully fashioned with real hooks and eyes, tiny buttons, and every detail of the original is carried out with care. A stuffed torso is used to hold the sachet inside of the miniature unmentionables. Each comes packaged in a separate white box.

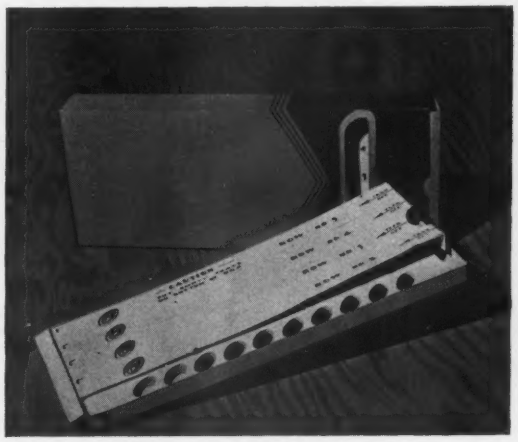
TIN-TOP TUBE: Some years ago we made quite a to-do about tin-coated lead tubes as cosmetic containers. Now a Mr. O. J. Bruun, Edinburgh Ave., Slough, Bucks, England, has a tube which he believes possesses all the advantages of a tin tube and some of the economy of a tin coated lead tube. His invention, British Patent No. 499,460, "relates to a collapsible tube with a body of tin-coated lead and a neck of solid, pure tin, the two parts being welded, soldered or fused together." In addition he claims complete tightness between neck and shoulder under all conditions, no lead exposed at joint, and from 25-40 per cent. less expensive than tin tubes.

HOME-MADE COSMETICS: That always interesting experiment of marketing a line of cosmetics in concentrated form, with directions for kitchen manufacture, is currently being made again. This time it is the Vitapact Cosmetic Co., St. Louis with a family of twelve put up in concentrated form to retail at 10 cents each or 10 for 89 cents. The line includes cleansing cream, cold cream, hand cream, vanishing cream, mediskin cream, shampoo, almond scented skin lotion, quinine hair tonic, wave set, refreshment lotion, perfume, cologne.

CAPSULE DISPENSING PACKAGES: Frederick Hertzler, designer, of 5155 Loraine Ave., Detroit, is the inventor of the capsule dispensing package illustrated here. He says, "We have designed this package to dispense one capsule at a time without disturbing the remaining contents, preventing wholesale spilling. Many packages are equipped with "tuck in" flaps and covers which defeat their purpose of sanitation because there have been too many experiences of having to pick up capsules off the floor.

"Practically all of the standard capsule partitions may be employed in this package and present filling methods to be used. The capsules are dispensed thru window in outside carton. There is merely a change in construction of the trays holding the partitions; there being a perforated flap which is blanked out as part of the tray.

"Please understand this model is only to convey the principles of operation, as there are several methods of construction to suit the individual manufacturer which will accomplish the dispensing feature. Square or round partitions may also be employed.



"Note that the consumer completely removes the tray from the box only once after each ten capsules are consumed—or ten times for the one hundred capsules as against one hundred times in using present methods. This design obviously eliminates the task of clumsily digging into the partitions with the fingers, hoping to get a grip on an object that was streamlined to be easily swallowed.

"Our first development on this design was a tubular container which revolved layers of capsules around to a vertical dispensing window. This design would be satisfactory in that the consumer would immediately recognize its utility feature from the conventional package style. However, such a container would require changes in fabrication and filling, which is not good music to most manufacturers.

"Vitamin capsules should be marketed in packages having sales vitality A B C D and plus."

ADMINISTRATIVE PROBLEMS

W. R. M. WHARTON, CHIEF OF THE EASTERN DISTRICT, Food and Drug Administration, gave a most interesting talk to the Packaging Conference held in New York last month, on the deceptive packaging provisions of the Food, Drug, and Cosmetic Act. Mr. Wharton had many examples of packages which had been changed. He spoke of the Bristol farmula accepted at least for the time being for cartons in which collapsible tubes are packaged. This formula was published in our January issue. He advised manufacturers to get the North Dakota formula for glass bottles and study it as an aid in determining whether or not their bottles are deceptive. This formula is given in Bulletin No. 40, August 1933 of the State of North Dakota.

Mr. Wharton was asked whether or not he thought the double shell plastic cream jars were deceptive, but he could not give a definite answer. Likewise he refused to answer offhand a similar answer referring to the packaging of tablets in cellulose tape packed in a carton. Mr. Wharton spoke of opal jars, showing one opal jar that had been changed since the new law became effective.

Mr. Wharton said that no general regulations could be issued regarding deceptive packages and that each case must be considered by itself. The question of deception cannot be set down in precise terms, in Mr. Wharton's opinion. Deception might arise from the deviation of one manufacturer from the conventional type of package used by practically all manufacturers of a particular product. Increasing the area of the package on the side exposed to the consumer might have the effect of causing deception. Evidently, the FDA is going to prevent a manufacturer from increasing the appeal to the purchaser of any product through the use of a package which gives the purchaser the idea that he is getting the same amount for less money, or a greater amount for the same money, when such are not the facts. Quantity markings have nothing to do with this phase of prevention of economic frauds, since the FDA openly admits that many people do not read the quantity markings but are of the opinion that all packages that appear to be the same size, contain the quantities.

IT IS INTERESTING TO SEE REPRESENTATIVE PATMAN attempting to get his chain store bill through Congress by modifying the terms for the time being at least. We wonder just how far Mr. Patman can go in the direction of killing chain stores before he has reached the limit set by public interest. We do not believe that anyone who studies the subject dispassionately could come to the conclusion that complete elimination of chain stores is for the public interest. Certainly we would not like to live in some towns we know and pay the retail prices we paid before the chains came in. And still we are not only perfectly willing, but we prefer to trade at independent stores and do so for the very large part.

We cannot agree with Mr. Patman that the chain stores are the menace that he pictures them to be. They have aided greatly in lowering retail prices, and for this they should be commended. They should not be allowed to stifle proper competition, but they should certainly be allowed to live under the rules of fair competition.

SEALS OF APPROVAL GRANTED FOR USE ON FOODS, DRUGS, OR COSMETICS would be subject to the approval of the Federal Trade Commission if the Lemke Bill (H.R. 8672) became law. Representative Lemke would not allow such private methods of granting seals to exist without approval of the Commission. Mr. Lemke is said to have stated that the bill is his own idea and not of the FTC. He is also reported to have declared that the bill is aimed at the seal plans of the American Medical Association, the American Dental Association, the Good Housekeeping Institute, and similar plans. The bill is not reported out of committee and no one knows just how far it will get.

WITH STATE LEGISLATURES NOW ADJOURNING, it appears that this industry faired quite well as regards new legislation. The Kentucky law which would have required registration of the products of this industry with the payment of a fee was killed, although it would have been acceptable if the registration and fee angle had been removed. The New York proposed bill to create a consumers' bureau and to enact drastic restrictions for the products of this industry, has been killed. While the industry would have preferred that more uniform food, drug, and cosmetic acts were enacted, the industry is lucky that none of the objectionable bills were passed.

APPLICATION OF THE IDEA THAT THE SAME QUALITY PRODUCTS cannot be sold by one manufacturer at different prices was applied by the Federal Trade Commission early this month in a stipulation signed the Miracle Dry Shaver Corporation. This company had been selling two electric razors of the same quality at different prices. One razor, called the "Miracle," sold for fifteen dollars, while another, called the "Shave King," sold for ten dollars. This will be stopped.

This brings up the thought that was prevalent when the Robinson-Patman Act was first enacted, namely, that manufacturers who offered two lines of drugs or cosmetics, both of equal quality, with one line priced lower than the other so as to meet competition in certain areas, would be in violation of the act. We have never seen this question answered, but perhaps it will not be long now.

WE ARE INFORMED THAT THE AMERICAN MEDICAL ASSOCIATION will appeal to the U. S. Supreme Court for a review of the Circuit Court decision which ruled that the A.M.A. and the medical profession come within the jurisdiction of the Clayton Act which prohibits monopolistic practices. This is a very proper appeal, even though some might consider that the A.M.A. is trying to escape trial on the charges in the indictment through a technicality. If the U. S. Supreme Court sustains the Circuit Court, then the trial will take place in the District Court. If the Circuit Court is reversed, then the case is dead.

Remarks that we made last month with reference to this suit against the A.M.A. were concerned with the efforts to establish group medicine in this country. We did not in any way indulge in the subject of Government medicine or socialized medicine. The system that we were talking about was the one that was tried in Boston and in Washington. This method is similar to hospitalization insurance whereby one pays a certain amount for a year and then gets medical treatment as it is needed. Such a system would undoubtedly be of great benefit to a very large portion of our population and would make for more frequent trips to the doctors and for greater use of medicaments. Established diagnostic aids would be more widely used and the quality of medical treatment would thereby be raised.

However, our remarks were misinterpreted as referring to Government medicine or socialized medicine. Carroll Dunham Smith, president of the Carroll Dunham Smith Pharmacal Company, sent us the following letter which makes some interesting points:

"Your always-interesting journal got out a March number that is particularly interesting from many points of view.

"I wish I could agree with you in your editorial, 'Group Medicine,' that the government's paying of the bills will lead to a larger market for ethical pharmaceuticals. We are told that is not the experience in England, Germany and Russia.

"Physicians, as a rule, are pinned down to certain very close limits as to what the cost of the medicine prescribed may be. That leads to only the cheapest products being used, which means that such efficient agents as sulfanilamide and sulfapyridine probably could not be used, because their cost would be beyond government limitations.

"What the medicine may be that would be furnished under government regulation may be inferred from an experience of ours. A concern supplied us with a drug to be finished into a certain product. We charged only for our labor and overhead, plus a modest profit. Then there was a call to supply a quotation for this exact product to a government bureau. We put in a bid at as low a price as we could possibly make, using the best grade of raw materials, plus the same care that we had used in manufacturing for our customer. And yet the customer got the bid at a price lower than we could possibly make! He was supplying his own raw material on which we had done the work. The question is, what was that raw material? The inference, of course, is that it was substandard, and therefore lower in price.

"I am convinced the pharmaceutical profession and trade will be bitterly disappointed if they feel state medicine under government control will increase their business.

"There is also every reason to expect that our experience here will be the same as in other countries that are trying state medicine: that is, that the doctors on the panel will be so overworked, partly of necessity and partly because the people getting medical treatment free impose on those supplying it, with the result that none of the doctors has time to make a careful diagnosis, or carry on a careful and proper treatment. The quality of treatment, therefore, would suffer greatly."

THE MATTER OF REQUIRING WARNINGS IN ADVERTISEMENTS of drug products is not being rushed by the Federal Trade Commission. Although warnings were thought possible by some when the Wheeler-Lea Act was enacted and the power to require them apparently exists in the law, the FTC is evidently proceeding on reasonable ground. There is said to exist an opinion among members of the Com-

mission's staff that only warnings against buying a product when it will not be of use is required. This means that if a product cannot be used by children, the advertisement should so state so that no one will be misled into buying the product for a purpose for which it cannot be used. Warnings against pathological conditions and warnings against the laxative habit are not thought to be necessary—at least at this time. These things are given in the labeling, and this is thought to be sufficient. Truth in advertising is what counts most. Also products should not be advertised in a manner that might make them dangerous to health.

THE DECISION OF THE U. S. SUPREME COURT to the effect that the New York City sales tax is properly levied on goods coming from other states to purchasers in New York City opens up quite unpleasant possibilities. The fact that the court decided that this tax does not discriminate against goods moving in interstate commerce gives all states and municipalities the right to levy similar taxes on all goods purchased in these areas whether coming from other states or not. Now we shall probably see attempts to enact similar local sales taxes as emergency measures. And just as in New York City, these emergency taxes will soon become permanent ones the receipts from which will be put to general use rather than to the special use created by the emergency.

NEW YORK CITY IS PROVING TO BE A LABORATORY FOR NEW TAXES. The city officials think up new methods of taxation to meet what they claim is an emergency. All goes well for a year or two, and then the legislature of the State makes statewide the tax which the city originated and prevents the City from levying such a tax itself. Then the City must think up new methods taxation. All of which presents a rather ridiculous picture for New York State. However, the real danger arises from the fact that other states can watch these experiments in new forms of taxation and then adopt the successful ones.

THE STATEMENT WAS MADE BY A PACKAGE DESIGNER at the recent Packaging Conference held in New York, that sixty per cent. of the label of a round package constituted the front panel in the opinion of FDA officials. This designer asked for equal tolerance in considering what constituted the front panel of a rectangular package. It is evident that sixty per cent. of a wrap-around label on a round package gives a manufacturer much more area with which to work than is the case when only one side of an ordinary rectangular package is used. However, a round package has less surface area than has the ordinary rectangular package. We should think that a definite area for front panels could be expressed in a certain ratio between the square inches of front panel and the cubic inches of the container. Then if there were not sufficient room on the one panel, the label could be continued on another side to gain the space allowed.

WE STILL WONDER WHEN, AS, AND IF THE FTC is going to do something concerning the citations of the cosmetic concerns made some three or more years ago under the Robinson-Patman Act. Are demonstrators wrong under the present system? The Commission has not yet expressed any opinion so it is impossible to settle the matter in the courts. If demonstrators are not wrong *per se*, must they be distributed on proportionately equal terms and how? How about the selling methods and other methods of merchandising used by the companies which were cited? Won't the Commission do something about these cases so the industry will know where it stands?

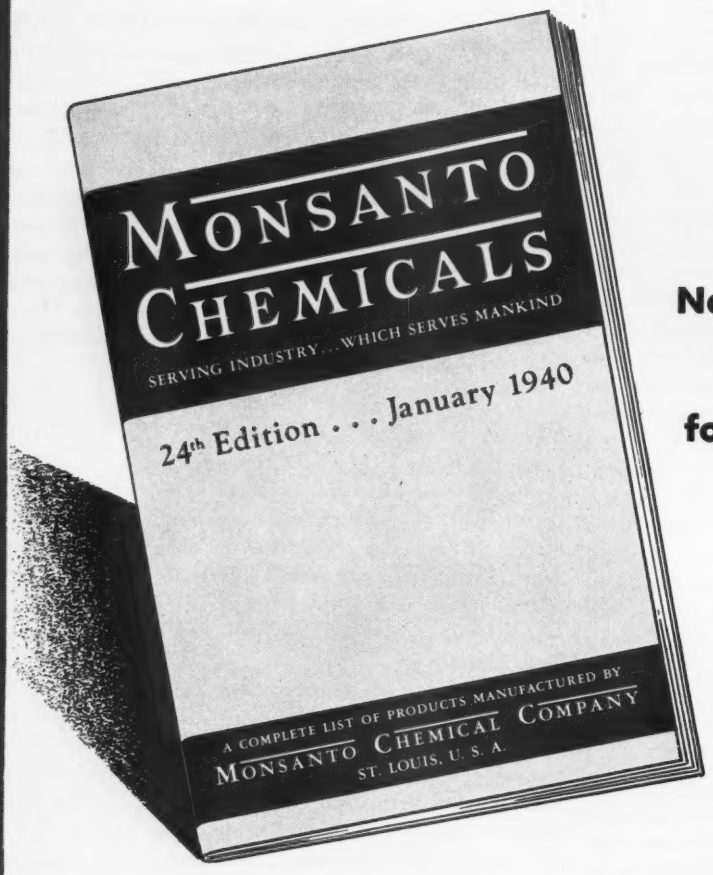
THE REGULATIONS FOR CERTIFICATION OF COAL TAR COLORS certainly are extreme. Not only must a mixture of two or more certified colors be certified before such a mixture can be sold, but lots of single certified colors bought by a dealer and then sold in smaller lots must be certified for repacking. The cost of certification of the original lot of color is fifteen dollars, and the cost of certifying a mixture or a lot for repacking is eight dollars.

We fail to see by what right the FDA can say that a color ceases to be certified when the package is opened and the color is repacked in smaller lots by other than the original maker. We think that the requirement that mixtures be certified is going pretty far, but we feel positive that certification for repacking is something that the law does not require. Certification of colors is going to increase the costs of colors for this industry quite enough without adding additional burdens.

We hope to see these regulations challenged before long. Certainly the makers of these colors do not want to handle a lot of this small business. They want to make certified colors in fairly large lots and sell in large lots. The dealers are necessary for proper distribution of these colors. Therefore, this requirement for certification for repacking only hinders proper distribution of certified colors.

EASING HANGOVERS WITH VITAMIN B is the latest use to which this important vitamin B is to be put. We have heard many reports about people carrying vitamin B tablets with them and taking them while they were drinking their favorite alcohol beverages, but we understood that one could drink more this way and still stay on his feet. This was desirable to us than the trick of drinking large quantities of olive oil which we have heard of people doing.

But now it is to be all automatic. For the Vitamin Beverage Company is marketing VV Vitawater a new sparkling water containing vitamins B_1 and B_2. The claim for this product is that it eases the severity of hangovers.


MONSANTO
CHEMICALS
SERVING INDUSTRY . . . WHICH SERVES MANKIND
24th Edition . . . January 1940
A COMPLETE LIST OF PRODUCTS MANUFACTURED BY
MONSANTO CHEMICAL COMPANY
ST. LOUIS, U. S. A.

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New Monsanto Product Booklet lists over 300 Chemicals for American Industry

The 1940 edition of the Monsanto Product List is available to all members of the pharmaceutical industry. The pharmaceuticals listed to the right are only a few of the Monsanto Chemicals described in this new booklet, copy of which will be sent on request. Address your inquiries to any Monsanto office. MONSANTO CHEMICAL COMPANY, St. Louis, U. S. A. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Birmingham, Los Angeles, San Francisco, Montreal, London.

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Acetanilid U. S. P.
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Aspirin (Acetyl Salicylic Acid U. S. P.)
Benzoic Acid U. S. P.
Caffeine U. S. P.
Chloramine-T. U. S. P.
Chloral Hydrate U. S. P.
Glycerophosphates
Phenol U. S. P.
Phenolphthalein U. S. P.
Salicylates
Salicylic Acid U. S. P.
Sodium Benzoate U. S. P.
Sodium Salicylate U. S. P.
Sulfanilamide U. S. P.

MONSANTO CHEMICALS
SERVING INDUSTRY . . . WHICH SERVES MANKIND

F.D.A. and F.T.C. Activities

F.D.A. Action

Deceptive Packaging

The following items were seized during February under the deceptive packaging provision of the new Food, Drug and Cosmetic Act because their containers were so made, formed, or filled as to be misleading; 469 tubes (in cartons) of shaving cream and 174 bottles (in cartons) of nose drops the cartons of which were too large for the size of tube or bottle contained therein.

Drugs Seized

Seizures of various lots of drugs included; 2574 packages of gauze bandage found to be unsterile, 115,090 defective mechanical prophylactics, 21 packages of skin ointment, the labeling of which bore false and misleading therapeutic claims and whose strength and quality differed from the standard claimed on the label; 27 packages of a remedy designated as "antipoison", the labeling of which bore false and misleading statements, including therapeutic claims, 15 vials of anterior pituitary sex hormone, the strength and potency of which differed from that claimed on the label; 24 pounds of powdered digitalis, the labeling of which bore false and misleading statements as its strength differed from the U.S.P. standard.

F.T.C. Complaints

Sekov Reducer

The F. T. C. has issued a complaint against Sekov Corporation, Hollywood, Calif., and Edwin H. and Hazel Ruth Vokes, as officers of the corporation and as individuals trading under the name Sekov Reducing Studios. The complaint charges misleading representations concerning "Sekov Reducer," sold as an obesity treatment and alleged to contain extract of thyroid, a dangerous drug.

The Commission recently obtained a preliminary injunction in the United States District Court for the Southern District of California restraining these respondents from further dissemination of false advertising of their product pending issuance of a complaint by the Commission and final disposition of its case.

The Commission complaint now alleges that the respondents disseminated advertisements representing that their preparation, "Sekov Reducer" or "Sekov" is a scientific treatment for obesity and that it guards the health of the user, acts entirely on a corrective principle, is made for reaching the glands whose faulty function is the cause of most overweight, and regulates the action of the glands gently and gradually.

Other representations alleged to have been made were that, unlike harsh methods of reducing, the respondents' product does not contain cathartics or dangerous drugs, does not reduce by merely tearing down fatty cells, takes off the fat without weakening the body, is especially prepared to be effective in reducing practically all cases of overweight, and reduces by normalizing the body.

The complaint charges that the respondents' claims are in excess of actual accomplishments; that their preparation is not a scientific treatment for obesity when administered without a thorough medical examination and without scientific care and observation, and that it constitutes a treatment for obesity only when used by persons suffering from hypothyroidism. The preparation, contrary to the respondents' representations, is alleged to be a harsh or strenuous method of reducing and to contain cathartics and dangerous drugs in that "Capsule No. 1" of the preparation contains rhubarb, cascara sagrada, aloin and bile salts, all cathartics.

It is further alleged that the respondents' failure to reveal the presence of extract of thyroid and the consequences which may result from use of their commodity under the prescribed conditions advertised or under customary conditions, constitutes false advertising.

Menstruation Aid Cited

William W. Kelso, trading as Northwestern Products Company and as Northwestern Health Clinic, Seattle, Wash., is charged with misrepresentation of a medicinal preparation.

The complaint alleges that the respondent represented "Periodic Relief Pills" as a cure, remedy or competent and effective treatment for delayed menstruation, and as being safe and harmless, when in fact it possesses no therapeutic value with respect to this ailment and is not safe and harmless in that it contains extract cotton root bark, extract black hellebore, aloes, oil savin and ergotin in quantities sufficient to cause serious injury if taken under prescribed conditions as advertised or under customary conditions.

The complaint also alleges dissemination of false advertisements in the respondent's failure to reveal in its advertisements that use of the preparation under conditions prescribed in the advertisements or under usual conditions may result in serious injury to the users' health.

Menstruation and Fertility

Warner's Renowned Remedies Company, in the sale of "Warner's Renowned Prescription No. 6" and "Warner's Renowned Alkaline Douche Tablets," is alleged to represent that its preparations are cures or remedies and competent and effective treatments for functional sterility; that they possess beneficial properties in relation to the functioning of the female reproductive organs, and that they will relieve discomforts associated with the menstrual period. The complaint alleges that the respondent's representations are exaggerated and untrue and that the respondent's preparations have no therapeutic value in treatment of the female organs or in revealing any form of functional sterility.

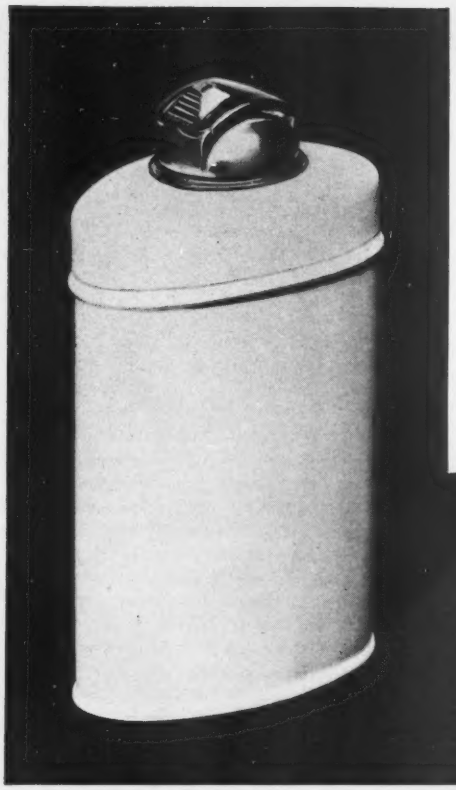
Neofem Advertising Cited

S. M. Laboratories Company is alleged to have advertised that its preparations "Neofem Capsules", "Neofem Liquid" and "Cerene" were cures or remedies or competent and effective treatments for painful and delayed menstruation and constituted safe and sane ways of self-medication when such were not the facts. The complaint charges that the drugs ergot, oil of savin and aloin were present in quantities sufficient to cause serious and irreparable injury to health if used under conditions prescribed in the advertisements or under usual conditions. The respondent company is charged with having disseminated false advertisements which failed to reveal the consequences which might result from use of the preparations under the prescribed conditions as advertised or under customary conditions.

Dental Plate Tightener

Engaged in the interstate sale of a preparation for tightening dental plates, Garey Carr, trading as Al Viola Products, Los Angeles, has been served with a complaint alleging misrepresentation.

In the sale of his "Al Viola Dental Plate Tightener and Reliner," the respondent is alleged to represent that use of his product constitutes a competent and effective method of tightening dental plates; that its use is certain to result in a perfect fit of such plates; that the product may be applied effectively by any person, and that no expert assistance is required in its use, when such are not the facts.



NEW INEXPENSIVE QUALITY CLOSURE for POWDERS

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TWO STYLES AVAILABLE:

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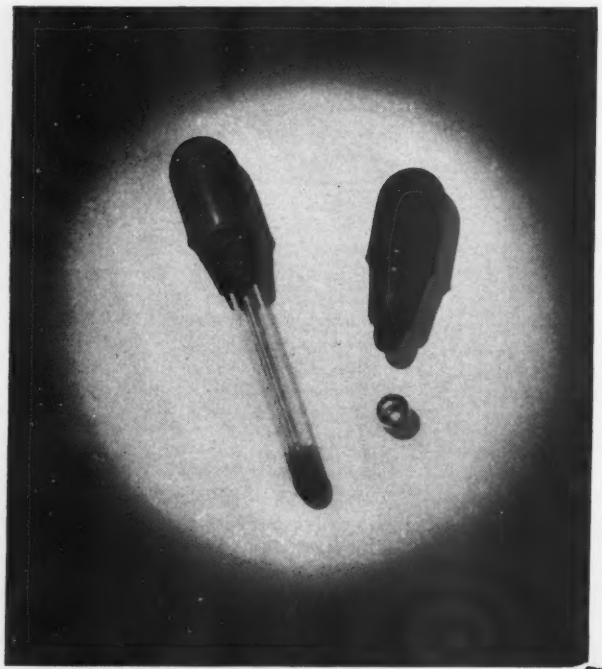

DOUBLE-DUTY!

ATOMIZING DROPPERS

As a Dropper As an Atomizer

THIS is the first practical atomizer ever produced at a price that makes it available as an item to be included in packages. Either the Atomizing Dropper or the Vest Pocket Atomizer makes a novel and extremely useful addition to the package for Antiseptics, Nose and Throat Remedies, Hair Preparations, Deodorants, Colognes, Toilet Waters, Powders, Insect Powders, Deodorant Powders, Foot Powders and Toilet Powders.

The Atomizing Droppers will atomize both fluids and powders. When the point is held down it's a dropper; hold the point up and it's an atomizer. The fineness of the spray can be adjusted to suit most any fluid.

Write for samples and prices on the Atomizing Dropper and the Vest Pocket Atomizer illustrated here.

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NEW YORK, N. Y. L. A. Barber 1123 Broadway Room 301

ST. LOUIS, MO. Woodson Barnhart 200 So. Commercial Street

GLASS PRODUCTS CO.

GLASSWARE

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Sex Pep Products

Charging misrepresentation of the properties and therapeutic values of certain medicinal products and failure to reveal that certain preparations offered for sale contain dangerous drugs, the F. T. C. has issued a complaint against Edwin L. Leisenring, trading as U. S. Drug & Sales Company, also as U. S. Drug Laboratories, and as U. S. Drug Company, and against Gordon Leisenring, both of 1534 Lawrence St., Denver, Colo.

Preparations sold by the respondents are "Man's Pep Tonic," also advertised as "Man's Tonic" and sold as "U. S. Special Tablets," and "Man's Pep Tonic (Double Str. Capsule)," also advertised as "Man's Tonic (Double Str. Capsule)" and sold as "Sextogen Capsules for Men or Women."

Through advertisements in newspapers and by mail, the respondents are alleged to represent that their preparations are safe, competent and reliable tonics; are effective, safe and scientific as aphrodisiacs and as treatments for strengthening and rejuvenating the glands and sexual organs of man or woman, and that the preparations possess therapeutic value in the treatment of debility.

Alleging that the respondents' representations are exaggerated, misleading and untrue, the complaint charges that the preparations are practically without value as tonics, because drugs possessing tonic properties are not present sufficiently to give tonic value. These preparations are alleged to possess neither any value for strengthening or rejuvenating the glands or sexual organs nor for treating debility.

The complaint alleges that the respondents' representations constitute false advertisements in that they fail to reveal that "Man's Pep Tonic" contains the dangerous drugs, extract nux vomica and yohimbine hydrochloride; that "Man's Pep Tonic (Double Str. Capsule)," sold as "Sextogen Capsules for Men and Women," contains extract nux vomica, yohimbine, and extract of thyroid, and in that they do not disclose facts with respect to the consequences which may result from use of such commodities under conditions prescribed in the advertisements or under customary conditions.

A preliminary injunction restraining the respondents from the same practices, pending disposition of the Commission's case, was obtained by the Commission February 13, in the United States District Court, Denver.

Hydrosal Products Cited

The F. T. C. has issued a complaint against The Hydrosal Company, Cincinnati, distributor of "Hydrosal Liquid" and "Hydrosal Ointment."

The respondent is alleged to have represented its preparations as possessing remedial, curative or healing properties with respect to eczema, piles, athlete's foot, poison ivy and disorders associated with pimples, skin rashes, outbreaks and itches which such preparations do not possess. The complaint points out that these products have no therapeutic value in connection with treatment of the ailments mentioned in excess of affording temporary and palliative relief from the symptoms of itching.

Contrary to a further representation of the respondent, in its advertisements, its preparations have not been adopted by and used generally in hospitals or by physicians, according to the complaint.

Never Break For Nails

Adolph Karl and Gertrude Karl, trading as A. & G. Karl Company, engaged in the sale of a cosmetic for application to the nails, designated "Never Break," formerly located at Newark, N. J., are charged with misrepresentation.

In advertising circulars, folders and other printed matter, the complaint alleges, the respondents have represented, among other things, that their product is "The ONLY Nail-Root Food" and that "All Nails Need Calcium. This product is scientifically compounded of the finest oils and chemicals needed to correctly nourish, preserve and strengthen the nails."

Through use of these statements and others, the complaint alleges, the respondents have represented that the product supplies food and nourishment to the nails; that it will preserve and strengthen them, and that it is a tonic for the nails and will promote the health thereof.

The complaint declares that these representations are false and misleading; that the respondents' product is wholly incapable of supplying any food or nourishment to the nails, and that it possesses no therapeutic value and is without any substantial value except as a covering or polish for the nails.

Menstruation Relief

Howard L. Brewer and Albert L. Tribbett, trading as B & T Sales Company, are alleged to represent that "Menstru-Eze" possesses curative and remedial properties which make it beneficial in treating delayed and painful menstruation when in fact it is without therapeutic value in such treatment.

Pow-O-Lin Cited

Herb Juice-Penol Co., Inc., Danville, Va., doing business as Pow-O-Lin Laboratories, is charged with misrepresentation.

The respondent's preparation "Pow-O-Lin" allegedly was advertised as possessing beneficial therapeutic properties for curing, remedying or treating constipation and "faulty elimination" and for overcoming symptoms of constipation which were given as biliousness, indigestion, gas pains, headaches, dizziness, pains in the back and chest, stiffness of the joints, swollen feet and ankles, nervousness, insomnia, loss of appetite and lack of energy.

It is alleged that the preparation possesses no therapeutic properties in excess of those of a cathartic or laxative and that the symptoms set out are not generally typical of any group of disorders and are not necessarily indicative of constipation or faulty elimination.

F.T.C. Orders

Vita-Perles Stopped

American Distributors, Inc. and John H. Morgan trading as Champion Products Company, both of Linton, Ind., and United Advertising Companies, Inc., Chicago, have been ordered by the Federal Trade Commission to cease and desist from misrepresentation in the sale of "Vita-Perles," a medicine claimed to contain Vitamins A, B-1, D, G and E.

Findings are that John H. Morgan was in business under the name Champion Products Company in the sale of Vita-Perles until August, 1938, when he organized American Distributors, Inc., for the sale of the preparation. United Advertising Companies, Inc. has been the respondents' advertising agent and has participated in the preparation and dissemination of their advertising matter.

In newspaper and periodical advertisements the respondents are found to have represented directly and by implication, among other things, that one may test Vita-Perles without risking any money; that vitamin deficiency is the cause of backache, headache, loss of appetite, premature old age and other ailments and conditions; that by use of Vita-Perles a thin, pale and sickly person will gain firm and healthy flesh and gain in weight as much as seven pounds in seven days. The Commission finds that the respondents' representations are misleading and exaggerated.

Respondents are ordered to cease representing that the preparation may be obtained and tested without risking the loss of any money; that backache, headache, leg pains, and various other ailments are caused by a vitamin deficiency or that such conditions will be relieved or corrected by the use of the respondents' preparation; that those who are thin, pale and sickly will by the use of the preparation acquire additional weight, an improved complexion, an increased resistance to colds and infections, an improved appetite or will become less nervous; that the impairment or premature loss of sexual desire, vigor, or potency in the male, is due to a vitamin deficiency, or will be restored or improved by the use of the preparation, or that its use will increase the general strength and energy, and that the preparation will affect women's ability to successfully con-

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ceive or bear children except in rare cases involving habitual involuntary abortion where inability to successfully bear children after conception may be due to a deficiency of Vitamin E of a degree susceptible of replacement by the Vitamin E content of the preparation.

Not Food—Harmful Drug

The F. T. C. has issued an order against Jean Ferrell, Inc., Chicago, prohibiting misrepresentation in the sale of "Concentra," advertised as a concentrated food for treating obesity and as a tonic.

Advertising matter referred to its product as being a highly concentrated food, safe for use, and, with the addition of liquids, as constituting a balanced diet capable of replacing the ordinary diet, according to findings. The preparation was also advertised as supplying deficiencies to the body, the findings continue, and as correcting overweight and underweight and eliminating poisons from the body by action of its rhubarb content and poisons from the kidneys because of its gravel root content.

Findings are that the respondent's representations were exaggerated and untrue; that the preparation is not a food, and that, because of its high content of rhubarb, it is a drug and not safe to use. The respondent was found to have disseminated false advertisements in that it failed to reveal that use of its product under conditions prescribed in advertisements or under customary conditions may in some cases result in serious injury to health.

The order directs the respondent to cease disseminating advertisements which represent that "Concentra" is a food or a concentrated food; that with or without the addition of liquids it will constitute a balanced diet or replace the ordinary diet; that it will supply deficiencies to the body, correct organic elements, cause "natural" elimination, correct overweight and underweight, restore or develop a healthy or normal figure, or eliminate poisons from the body or kidneys.

The respondent corporation is also directed to desist from representing that its preparation is safe for use and from disseminating advertisements which fail to reveal that continued use of the preparation over a long period would cause excessive purgation and result in serious injury to the health of the user.

Not a Cooperative Guild

Anesthetic Laboratories, Inc., formerly Guild Anesthetic Laboratories, Chicago, engaged in the manufacture, sale and distribution of "Guild Procaine Epinephrine Anesthetic," has been ordered to cease representing that it is a guild or association of persons engaged in kindred pursuits, and other than a commercial business existing or operating for profit.

The respondent corporation was originally incorporated in 1937 under the name of Anesthetic Advancement and Research Guild, Inc. and within the last year changed its name to Guild Anesthetic Laboratories, Inc., and subsequently to Anesthetic Laboratories, Inc.

In advertisements concerning its medicinal preparation, which is used as a local anesthetic by practicing dentists, physicians and dental colleges, the Commission finds, the respondent has represented that "In its serious efforts to help the Dental Profession the GUILD feels that its policy of education and enlightenment should include, wherever an item is not equitably priced, the production in its own fully equipped laboratory of the EQUIVALENT OR BETTER of the item involved that it may thus offer to the dentist at the lowest possible price." In certain of the respondent's printed matter, the Commission finds, the word "guild," when used in the corporate or trade name, was set out in a different type of lettering with the effect of stressing and directing the attention of the reader to the word "guild."

Respondent is ordered to cease representing in any manner that it is a guild or association of persons engaged in kindred pursuits for mutual protection, aid and cooperation, or that it is anything other than a commercial business existing or operating for profit; that the respondent is impartially engaged in research for the purpose of advancement of the science of anesthesia, or that the respondent operates for the benefit, education or enlightment of the medical and dental professions.

The respondent is also directed to cease using the word "guild" or any term of similar import or meaning to describe or in any way refer to its business or products, including use of the word "guild" as part of its trade or corporate name or as part of the brand name of its products.

Grape Cure False

Jessie F. Springer, trading under the name of Harmony Centre, New York, has been ordered to discontinue misrepresentations of a book written by one Johanna Brandt, entitled "The Grape Cure," and formerly entitled "The Grape Cure (How I Cured Myself of Cancer)."

The Commission's findings are that the respondent's book purportedly tells how Johanna Brandt cured herself of cancer through the use of the method or system of treatment narrated in the book which is based on the use of grapes as a foundation and which method of treatment, the respondent represents, will cure cancer and practically all other diseases, ailments and conditions which may afflict the human body.

Among representations in the advertising disseminated by the respondent, the findings continue, are that most diseases originate in the intestines and are caused by poisons due to uneliminated waste; that grapes dissolve, or are a solvent of mucus; that those who develop malignant growths in most cases have been suffering from constipation; that salt, inorganic drugs, and patent medicines cause cancer, and that the system or method of treatment outlined in the book will restore one's health.

The Commission finds that these representations are false and misleading; that grapes do not dissolve, and are not a solvent of mucus; that salts, inorganic drugs and patent medicines do not cause cancer, and that the system or method of treatment outlined in the book is not a competent treatment or an effective remedy for various ailments.

The respondent is ordered to cease representing, in connection with the sale and distribution of the book entitled "The Grape Cure", that the system or method of treatment outlined in the book constitutes a cure or remedy for or a competent and effective treatment for constipation, cancer, heart trouble, kidney trouble, bladder trouble, angina pectoris, sinus trouble, goiter, stomach ulcers, rheumatism, asthma, gall stones or tuberculosis, and from representing that grapes dissolve, or are a solvent of mucus.

F.T.C. Stipulations

Bliss Will Stop Claims

Alonzo O. Bliss Medical Company, Washington, D. C. engaged in selling a medicinal preparation designated "Bliss Native Herb Tablets," agrees to cease representing by use of the word "quickly," or any other word of similar import, that the said product will give immediate relief for, or, by the use of the words "positive relief" or similar words that the product relieves, upset stomach, gas bloating pains, acid risings, lost appetite, sour stomach, and headaches, due to constipation or other causes; and that the product will flush the bowels or kidneys, stimulate the liver, cause a faster elimination of kidney waste, or is a treatment for the stomach, unless the last mentioned representation is limited to such influences as it might have as a stomachic.

Quality Chemical Co. to Stop

Harold C. Breckenridge, Detroit, trading as Quality Chemical Company and engaged in selling a furniture polish designated "Scientific," certain cosmetics designated "Delora Alice Skin Lotion," "Delora Alice Fine Perfumes," "Flower of the Orient," and "LaFrance," and food products under the general heading "Magic Concentrates" designated "French Chef Flavors," "French Chef Spices," "French Chef Table Syrup" and "French Chef Food Colors," agrees to cease representing

that "Scientific" contains a secret ingredient or that Delora Alice Skin Lotion is healing or that it has a healing action. Harold C. Breckenridge further agrees to cease using the word "French" as descriptive of any of his products neither made in France nor composed chiefly of French ingredients; from using the words "La France" and "Orient" as descriptive of any of his perfumes not made in or not composed chiefly of ingredients from, France or the Orient, and to desist from using the words "Pure Ingredients" as descriptive of any product that is synthetically flavored to imitate the real and true flavor. The respondent further agrees to cease using the title "President" or otherwise representing that the business conducted by him as an individual is a corporation or an association.

London House to Change

London House, Ltd., agrees that in the sale of its products it will cease using the words "London House, Ltd." as and for its corporate and trade name, the address "London" on its trade stationery, the words "London House" in its advertising matter, or picturizations of English characters or scenes, implying that this New York corporation is a London house or company, or manufactures products or conducts business or maintains a branch in London, or that merchandise made in the United States is of English or other foreign origin and imported into the United States, when such are not the facts.

Ce-Kelp Not Cure-All

The F. T. C. has accepted from Melvin E. Page, trading as Dental Research Company, Muskegon, Mich., a stipulation in which he agrees to discontinue misleading representations of a kelp preparation advertised as "Ce-Kelp, the Gift of Nature to Man" and "A Vegetable Sea Food Rich in Minerals."

Among representations to be discontinued are that the product is "rich in minerals"; that it prevents or corrects what physicians call the deficiency diseases; and that heart trouble, tuberculosis, anemia, high and low blood pressure, hardening of the arteries, rheumatism, neuritis, arthritis, kidney and bladder trouble, frequent colds, nervousness, constipation, acidosis, pyorrhea, over and underweight, cataract or cancer are recognized or properly classified as being deficiency diseases.

The respondent also stipulated that he will cease representing that the main cause of deficiency diseases is lack of mineral elements in ductless glands, or that his commodity or any other kelp product is "literally packed" with such essential elements.

The respondent stipulate that he will desist from designating himself as "Dr." or "Doctor" unless it be clearly disclosed that he is a doctor of dentistry and not of medicine.

The stipulation points out that, according to reliable medical authority the respondent's various claims and inferences are contrary to the weight of scientific evidence and are based upon premises that cannot be substantiated.

Neural-Aid and Myacin to Stop

Biovegetin Products, Inc., trading as V. M. Products, in the sale of "Neural-Aid," agrees to cease advertising that the preparation is a nerve food or a competent treatment or effective remedy for nervousness, neuralgia, nerve fatigue, constipation, nervous insomnia, constant worry, muscular aches or pains or disturbances of the nervous system, or for neuritis unless the last named representation is limited to the preparation's aid in the treatment of peripheral neuritis, alcoholic neuritis, neuritis due to anemia, neuritis of pregnancy or neuritis of pellagra. The respondent also agrees to cease using the word "Neural" as part of the trade name for the product.

Biovegetin Products, Inc., in a second stipulation, agrees to desist from representing that its product "Myacin" kills or ends pain or from otherwise implying that it will afford more than temporary relief from pain associated with rheumatism, arthritis, neuritis, sciatica, gout or lumbago; that it contains no harmful or habit forming drugs or affords safe relief, and that its formula originated in Europe or is used by thousands of American doctors and hospitals. The stipulation relates that the respondent's preparation contains an ingredient which has a tendency to be harmful and habit forming.

Verard Claims to Stop

The F. T. C. has accepted from Ruth Cecil Arden, trading as The Verard Company, New York, a stipulation to discontinue certain misleading representations in the sale of "Verard Solution."

Respondent agrees to cease representing that the preparation is of itself a competent treatment or effective remedy for athlete's foot; that any person using such medication will no longer suffer from red or swollen feet or certain other discomforts; that beneficial results may be expected by the user without regard to the stage of the infection, the presence of accompanying factors or the necessary hygienic measures which must attend any type of medication for such conditions. The respondent also agrees to discontinue misleading uses of the word "guaranteed."

Not For Athlete's Foot

Agreeing to discontinue misrepresentation of a medicinal preparation, Israel Freed, trading as Kamazin Manufacturing Company, N. Y., agrees to cease representing that use of his preparation "Kamazin Powder" affords relief from athlete's foot for a long period of time or affords permanent relief, and that doctors prescribe or endorse Kamazin Powder.

Not For Diabetes

Robert J. Schwyn, trading as Schweizer Tee, stipulates that he will cease representing that the preparation "Schweizer Tee," is competent or effective for treating diabetes; is prescribed or recommended by doctors; helps the organs to function normally, and effects a reduction of sugar or makes a broader diet possible.

Acquin Claims Modified

Acquin Pharmacal Co., St. Louis, also trading as Acquin Products Co., agrees to cease representations which convey the impression that "Acquin" is competent or effective in treating headaches, simple neuralgia, colds, sore throat or other ailment, or is efficacious for any purpose other than as a temporary relief of minor pains or the mild discomforts incident to them.

Zonite To Stop

Zonite Products Corp., New York, has agreed to cease misleading representations of "Zonite Ointment," "Zonite Liquid" and "Vaginal Suppositories (Zonitors)."

Among representations which the respondent agrees to discontinue are that the cause of menstrual distress is often due to the presence of germs, or that the problem of feminine hygiene is eliminated by the use of the respondent's products or that they are a competent treatment for leucorrhea.

Other representations which the respondent agrees to discontinue are that "Zonite Liquid" has a soothing action on the membranes or may always be used without risk, or that it can never injure delicate tissues; that its use assures freedom from grippe, colds, coughs and other diseases of the respiratory system; that it is effective in combating the cause of pyorrhea; will control all dandruff or itchy scalp skin; end dandruff or itchy scalp; kill onion breath permanently, and that the respondent's products are the only antiseptics which are non-poisonous under similar conditions of use, and that "Zonite Liquid" or "Zonite Ointment" are 100 per cent. effective in preventing athlete's foot or will assure the user of immunity therefrom.

No Laboratories

Premier Laboratories, Inc., Trenton, N. J., agrees to cease using the name "Premier Laboratories, Inc." as and for its corporate or trade name, when in fact there are no such laboratories, and to discontinue designating itself as "Manufacturing Chemists and Perfumers," when it neither owns and operates nor directly controls the plant in which the goods it sells are made.

SKILLFUL NAVIGATORS
set their sails with the wind

It's not always **the** amount of canvas unfurled—it's frequently the setting of the sails that brings in the winner. HOW TRUE THIS IS IN THE SALE OF DRUG AND PHARMACEUTICAL PRODUCTS.

A new or improved ingredient—a better fine chemical—frequently gives a pharmaceutical product new talking points, new sales opportunities. Such a shift rejuvenates your whole selling program—revitalizes your entire sales story. Your advertising becomes news. The public tries, tests and buys. No extra pressure, just skillful navigation.

Perhaps some of your products need a shift in chemical buying, a shift that will make your product more efficient. We don't pretend to know all the answers, but the house of Baker has had the privilege of helping many pharmaceutical manufacturers achieve their sales goal.

It may be a refinement of a U. S. P. chemical. It may be a special chemical made especially for you to rigid specification. With our background of 35 years in the manufacture of Baker's Analyzed C. P. Chemicals for laboratories where testing goes to the fourth and fifth decimals, we have learned much about purity and how to control it. That's the reason Baker's Fine Chemicals are so uniform in quality, so well received by the pharmaceutical and drug trade.

Should you have a manufacturing problem where a fine chemical may enable you to offer more selling advantages, we invite you to discuss it in confidence with a Baker representative, or, if you prefer, direct with our executives here in Phillipsburg.

J. T. BAKER CHEMICAL CO., Phillipsburg, New Jersey

NEW YORK
420 Lexington Avenue

PHILADELPHIA
220 South 16th Street

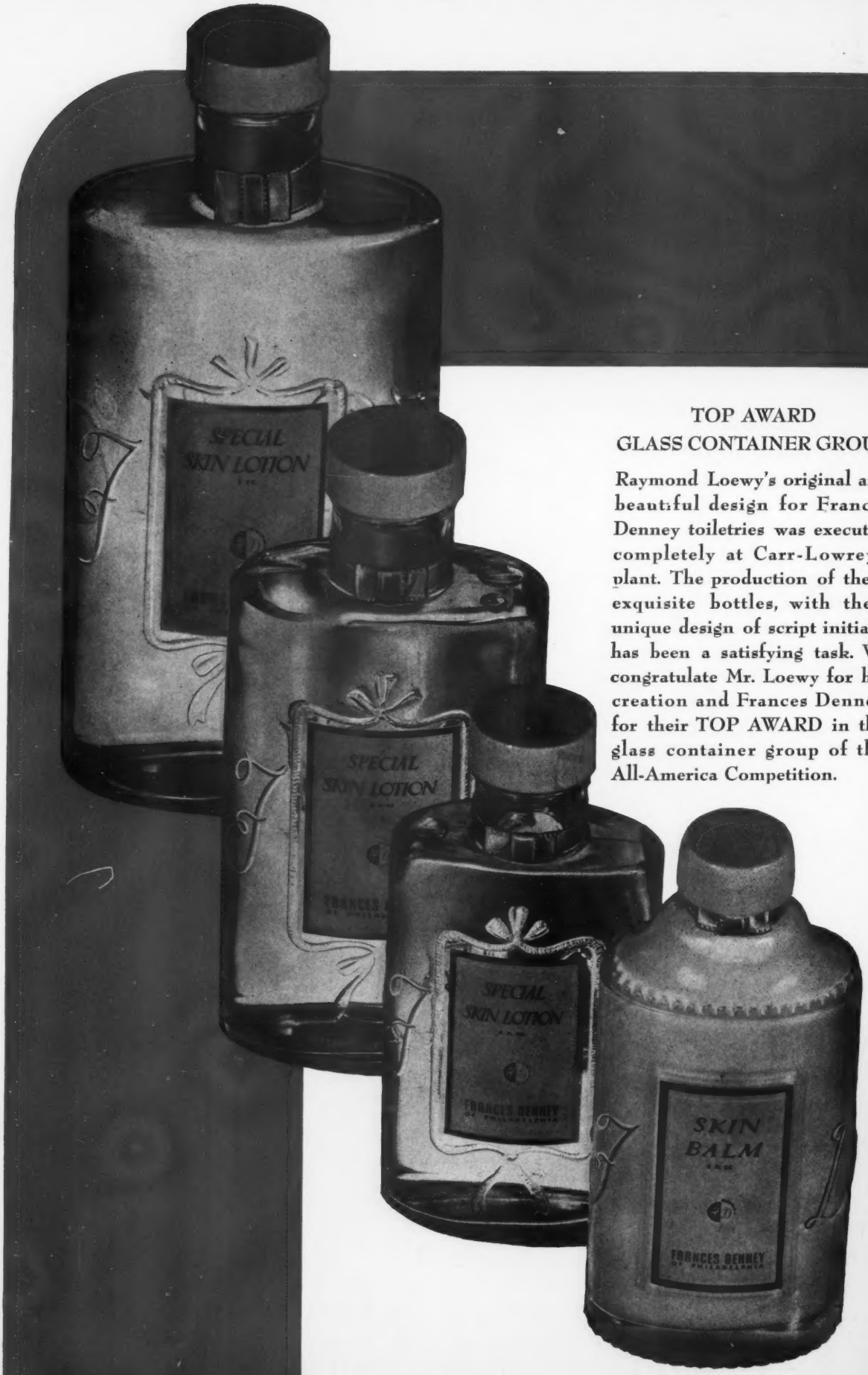
CHICAGO
435 North Michigan Avenue

ANALYZED REAGENTS
Baker's
FINE CHEMICALS

A partial list of Tonnage Fine Chemicals held under rigid control, at no price premium.

- Alkali Bromides
- Potassium Iodide
- Magnesium Oxide
- Cream of Tartar
- Bismuth Subcarbonate—Subnitrate and other Salts
- Caustic Potash and Soda Sticks and Pellets
- Rochelle Salt
- Lead Acetate
- Salicylates

Baker's fine chemicals
for Pharmaceutical Manufacturers

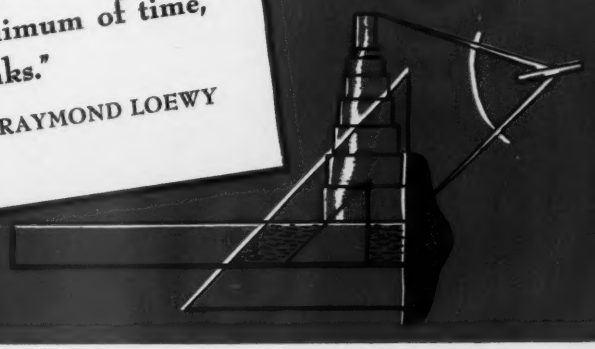


TOP AWARD
GLASS CONTAINER GROUP

Raymond Loewy's original and beautiful design for Frances Denney toiletries was executed completely at Carr-Lowrey's plant. The production of these exquisite bottles, with their unique design of script initials, has been a satisfying task. We congratulate Mr. Loewy for his creation and Frances Denney for their TOP AWARD in the glass container group of the All-America Competition.

"The cooperation and understanding of a firm such as Carr-Lowrey make it possible for the designer to achieve unusual results with a minimum of time, effort and wasted motion. Many Thanks."

—RAYMOND LOEWY



"3-Point" Service=3 Awards

We like to see our glass containers win out in package competitions. We like to know that super-critical boards of judges think well of our bottles. We like to hear people say nice things about our work.

But these awards simply confirm a fact that has been known to our customers for a long time. Namely, that people like to buy drugs, cosmetics, household specialties and foods that are packaged in Carr-Lowrey bottles.

If you manufacture products of this kind, you ought to know about our "3-point" service: the creation of glass containers that are (1) Attractive, (2) Practical, (3) Economical.

Perhaps we can help you win the biggest and most thrilling prize of all—more sales!

Carr-Lowrey Glass Co.

Factory and Main Office: BALTIMORE, MD.

New York Office: 500 Fifth Avenue • Chicago Office: 1502 Merchandise Mart

The dispensing bottles, with special "well-tops", (which permit easy filling) used by Sheaffer's for SKRIP are made by Carr-Lowrey. We extend our sincerest good wishes for the ever-increasing success of this line that won a TOP AWARD for the Sheaffer Pen Company.

Bottles for the distinctively-packaged Wrisley "Marine" and "Old Fashioned Lavender" lines of quality men's toiletries were produced by Carr-Lowrey. We congratulate the Allen B. Wrisley Distributing Co., of Chicago, Ill., for their fine designs and for their "All-America" Award.

HAVE YOU A PROBLEM CHILD IN TIN?

WELL . . . it's our job to help you! ¶ Modern Container-making calls for a brand of resourcefulness . . . vision and understanding that steps 'way ahead of mere *machine* methods. ¶ Customers insist upon *this* and object to *that!* Certain features are a *"must"* . . . other conditions a definite *"out"!* ¶ Proving skill . . . "NATIONAL" Container Service steadily produces Packaging *sensations.* Style merges with practical demands . . . requirements are met and more than often highlighted by originally devised refinements.

The Packages illustrated were designed with a particular view to *Safety Features of Closure* to protect the Baby. ¶ *No Removable Parts* and *Safe diameters* . . . combined with pleasing color design and chip-proof permanence of lithography . . . make these practical and desirable Baby Powder Containers.

YOUR PROBLEM IN PACKAGING . . *Bring it to* "NATIONAL"!

NATIONAL CAN CORPORATION

SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK CITY

Sales Offices and Plants • NEW YORK CITY • BALTIMORE • MASPETH, N. Y. • CHICAGO • BOSTON • DETROIT • HAMILTON, OHIO

NEWS

Associations

A.D.M.A. Program

The twenty-ninth annual meeting of the American Drug Manufacturers' Association will be held at the Greenbrier, White Sulphur Springs, May 6 to 9. The biological section and the scientific section will both hold their meetings at 9 A. M. on the first day of the convention, and the pharmaceutical section will meet at 3 P. M.

At the biological section meeting, the following committee chairmen will give their reports: S. D. Beard, Standardization of Antipneumococcic Serum; John F. Anderson, Diphtheria Toxoid; Edgar B. Carter, Preservatives in Biological

S. DEWITT CLOUGH

Products and Methods for Sterility and Safety Testing; W. A. Feirer, Antirabic Vaccines; E. A. Cahill, Proposed Regulations of Bureau of Animal Industry; John F. Norton, Standardization of Bacterial Vaccine; W. E. Bunney, Committee to Investigate Laboratory Animals Used in Biological Standardization.

The following guests have accepted an invitation to meet with the biological section and will take part in the discussion: Dr. L. R. Thompson, director of the National Institute of Health; Dr. W. T. Harrison, chief of the division of biologics control, National Institute of Health; Dr. D. I. Skidmore, chief of the division of Virus-Serum Control, Bureau of Animal Industry, U. S. Department of Agriculture. Dr. Sarah Branham of the National Institute of Health will also be a guest. She will address the section on the subject, "Antimeningococcic Serum: Its Present Status and Future Possibilities."

The meeting of the scientific section will be opened by R. J. Fosbinder, chairman. Reports will be presented by the chairmen of the subcommittees. J. B. Fullerton, chairman of the subcommittee on Analytical Assay Methods, will report on a cooperative study involving the assay of Magnesium Sulfate Solution, Sodium Phosphate Solution, Glycerite of Bismuth, N.F., and a Solution of Bismuth equivalent to 2.5 per cent. of Bismuth Hydrochloride.

D. M. Copley, chairman of the subcommittee on Alkaloid and Drug Standards, will report the results obtained on the estimation of strychnine in Tincture Nux Vomica and Fluid Extract Nux Vomica by the application of the U.S.P. and N.F. analytical procedures. A report will also be submitted on the assay of Quinine Sulfate U.S.P. XI in which a modification of the N.F. method for tablets was used.

Other subcommittee chairmen reporting will be: L. A. Watt, Chemical Tests and Standards; Wm. J. Stoneback, Crude and Milled Drugs; F. E. Bibbins, Drug Extracts; Marvin R. Thompson, Pharmacological Assays; E. H. Volwiler, Synthetic Organic Chemicals; Arthur D. Holmes, Vitamin Assays; Walter C. Christiansen, Hydrogen-ion Concentration; and Frederic Fenger, Digestive Ferments and Glandular Products. Dr. Fenger's report will deal with a cooperative study on the use of domestic potato starch an A.D.M.A. standard for determining diastatic activity of pancreatin U.S.P. The subcommittee headed by Dr. Fenger has also had under consideration the question of deterioration of reference trypsin and the preparation of a new standard lot of this material.

Dr. Roger Adams, head of the department of chemistry, University of Illinois, will address the scientific section on "The Present Status of the Chemistry of Natural Products."

The first general meeting of the association will be held May 7. S. DeWitt Clough, Abbott Laboratories, president of the association will give his report and reports will also be given by the executive vice-president, secretary, and the treasurer. Lt. Col. C. F. Shook, Medical Corps, U. S. Army, will address the meeting on the subject, "Industry and Its Position in National Preparedness."

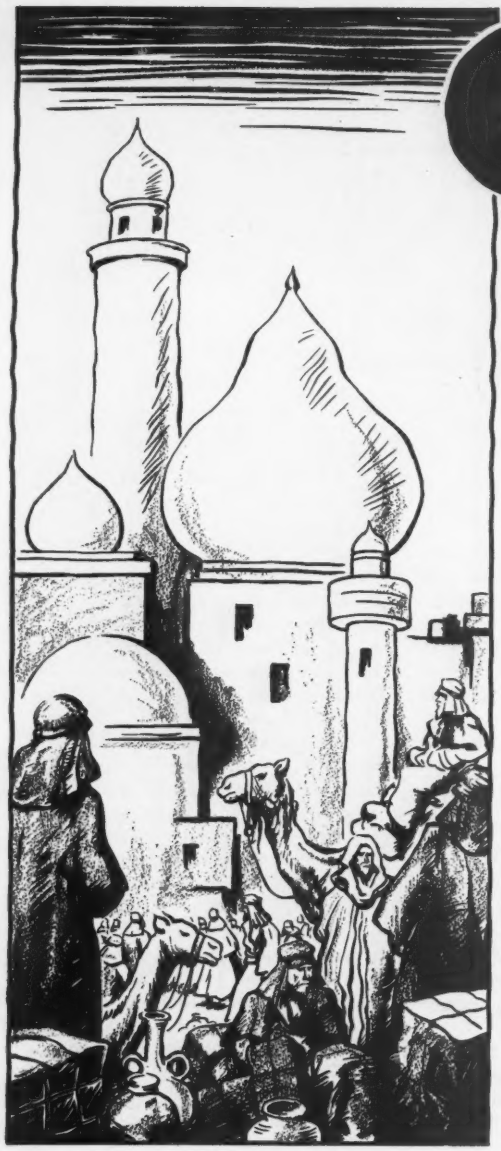
Another general session will be held on the third day of the convention, Wednesday, May 8, in the morning, at which time committee chairmen will make their reports. The annual banquet will be Wednesday and the golf tournament will be held on Tuesday afternoon this year, a day earlier than usual.

At the second general session Wednesday, morning May 8, Dr. Perrin H. Long, a member of the faculty of the Johns Hopkins Medical School and a member of the staff of The Johns Hopkins Hospital, will be the speaker. His subject is: "Comparative Clinical Studies Upon the Value of Sulfanilamide, Sulfapyridine and Sulfathiazole."

A record attendance is anticipated at the convention this year.

Drum Heads Chicago Assn.

The annual business meeting of the Chicago Drug and Chemical Association was held immediately following the regular monthly luncheon on March 28. Officers for the coming year were elected as follows: president, C. L. Drum, Owens-Illinois Glass Co.; vice-president, John A. A. Scott, Merck & Co., Inc.; secretary, Walter R. Nay, Mallinckrodt Chemical Works; and treasurer, J. M. Gillet, Victor



GUM
KARAYA
TRAGACANTH
ARABIC
LOCUST

ORBIS GUMS, whole or powdered, are the products of expert experience of forty-two years standing in the selection of fine raw materials and in milling to guarantee complete satisfaction for your most exacting technical requirements.

ORBIS GUMS can be obtained in any mesh from the finest powder to the various granular forms used to a great extent in the drug field—ground in our modern mill at Newark, New Jersey.

ORBIS KARAYA GUM in fine powdered form is specially adaptable for "Wave Sets."

Please let us know your requirements. Working samples upon request.

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PRODUCTS CORPORATION

215 PEARL STREET, NEW YORK - FACTORY & LABORATORY, NEWARK, N.J.

CHICAGO 831 N. Wabash Ave.
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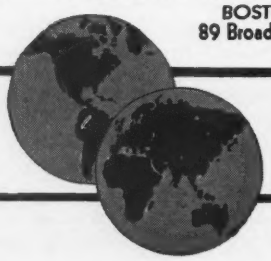
Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Thymol	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



Chemical Works. Directors elected for a two-year term were: Robert O. Hereford, Kimble Glass Co.; Joseph P. Sullivan, E. I. du Pont de Nemours & Co., Inc.; Dale F. Ruedig, Eli Lilly & Co., and Arthur C. Drury, A. C. Drury & Co., Inc.

Schlotterer Leaves Drug Section

Ray C. Schlotterer has resigned as secretary of the Drug, Chemical and Allied Trades Section of the New York Board of Trade, a position which he has occupied for the past ten years, in order to devote full time to the position of secretary of the Federal Wholesale Druggists' Association, Inc. Mr. Schlotterer is now located in new offices at 41 Park Row.

RAY C. SCHLOTTERER

He is a graduate of Princeton University and held the position of Secretary of the Code Authority of the Natural Organic Products Industry which administered the code for the raw materials entering the drug and cosmetic industries. He is managing director of the Essential Oil Association of U. S. A. and still continues his interest in this field.

Ostrom Succeeds Schlotterer

John C. Ostrom has been appointed secretary of the Drug, Chemical, and Allied Trades Section, of the New York Board of Trade to succeed Ray Schlotterer. Mr. Ostrom was formerly connected with the passenger traffic department of the Holland-America Line.

Flavoring Extract Meeting

E. L. Brendlinger, secretary of the Flavoring Extract Manufacturers' Association, has announced that the association will hold its annual convention at the Drake Hotel, Chicago, June 24, 25, and 26. The program this year will again be built largely around the interpretation of the Food, Drug and Cosmetic Act.

Chicago Perfumery Stag

The Chicago Perfumery, Soap and Extract Association will hold a spring stag party for members and guests in the Old Town Room of the Sherman Hotel, Friday, April 26, at 6.30.

N.W.D.A. Spring Meeting

The National Wholesale Druggists' Association will hold a meeting at the Palmer House, Chicago during the third week in April. On Wednesday, April 17, the Board of Control will meet. Thursday, there will be meetings of the Mississippi Valley Drug Club, the J. S. C. Club and the O. K. I. M. Club at 9.30 in the morning. Each club will have a luncheon following the morning meeting.

At 2 o'clock there will be an informal meeting of the manufacturers who are associate members of the N. W. D. A. under the auspices of the N. W. D. A. Manufacturers' Committee, of which Arthur B. Hill is chairman. At the same time an informal meeting will be held by the service wholesale druggists representing a joint meeting of all the local clubs and groups. From 5 to 7 a cocktail party will be given by wholesalers for manufacturers.

Friday morning there will be an informal joint meeting of drug wholesalers and manufacturers. Arthur B. Hill and J. M. Penland will preside. Dr. Fred A. Russell, of the School of Business, Northwestern University, will speak on "Modern Distribution.

Companies

Janvier and Ritchie Consolidate

William McKinney, president of Walter Janvier Inc., Harold F. Ritchie & Co., Inc., J. C. Eno, Ltd., and a director of Beechams Pills, Inc., has been elected president of Scott & Bowne, Bloomfield, N. J.

Present plans call for the centralization of the manufacture of Eno Saline Laxative, Scott's Emulsion, Scott & Bowne Vitamins, Beechams Pills, and allied lines at the Scott & Bowne plant in Bloomfield.

The Janvier and Ritchie interests have been merged and will maintain a New York office at 9 Rockefeller Plaza, with headquarters in Bloomfield.

As president of Scott & Bowne, Mr. McKinney succeeds William H. Mathee who has resigned. Mr. Mathee joined Scott & Bowne as vice-president and general manager in 1936 and became president in 1938. In that year the Scott & Bowne Vitamin Corp. was formed and Mr. Mathee also became president and general manager, a position which he has also resigned. After a short vacation, he will announce his future plans.

Arnold Gaine, vice-president and treasurer of Scott & Bowne, and J. W. Clissold, sales manager for Scott & Bowne Vitamin Corp., resigned March 21.

Dow Builds New Plant

The Dow Chemical Co. has purchased an 800-acre tract at Freeport, Texas, where it will erect a $5,000,000 plant for the production of magnesium. Sea water will be used as the source of the magnesium. The plant is expected to be ready for operation late next summer.

Stearns Advances Fraenkel

Frederick Stearns & Co., Detroit, has announced the appointment of E. V. Fraenkel as general manager of the company.

Mr. Fraenkel was born in Australia. He received his pharmaceutical education and degrees and started his sales career there. He joined Frederick Stearns & Co. as a salesman, becoming successively assistant sales manager, general sales manager, vice-president, and now general manager.

E. V. FRAENKEL

Mr. Fraenkel has announced that Earl Warner, vice-president and treasurer, will act as assistant general manager; Walter Vennard has been appointed general sales manager; John Delaney, assistant manager in charge of professional promotion; E. B. Skinner, assistant manager in charge of sales; J. I. Palistrant, divisional sales manager of the New York depot and Edward Kade, advertising manager.

Abbott Officers Re-elected

At a meeting of the stockholders of Abbott Laboratories, held on March 21 at the company's offices in North Chicago, Ill., the entire board of directors was re-elected. Members of the board are: E. H. Ravenscroft, S. DeWitt Clough, Rolly M. Cain, James F. Stiles, Jr., Dr. E. H. Volwiler, Alfred W. Bays, Dr. J. F. Biehn, Edgar B. Carter, Edmund L. Drach, Raymond E. Horn, Carl Nielsen, Dr. George W. Raiziss, Floyd K. Thayer, Claud A. Thornburg and Ferdinand H. Young.

The board of directors, at its meeting on the same day, re-elected all officers: Edward H. Ravenscroft, chairman of the board; S. DeWitt Clough, president and general manager; Rolly M. Cain, executive vice-president and assistant general manager; James F. Stiles, Jr., vice-president and treasurer; Dr. Ernest H. Volwiler, vice-president in charge of research; Raymond E. Horn, vice-president and general

Beauty is more than Skin Deep

While the success of your products is based on packaging, color, merchandising . . . your repeat business goes deeper. Fundamentally, it is what goes into your cosmetics and how they are processed that counts.

Kolmar Laboratories, private label manufacturers, formulate each product of the finest ingredients with tireless research and modern laboratory methods. Kolmar protects your reputation with Products Liability Insurance.

Kolmar Laboratories make spot shipments direct to your customers. We are equipped to handle all details, to relieve you of costly shipping and billing expense.

Kolmar laboratories

MILWAUKEE • NEWARK

Kolmar Representatives:

Mr. M. C. Boyd, Quinby Building, Newark, N. J.
Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 155 N. Vermont Ave., Los Angeles Cal.

sales manager; Alfred W. Bays, secretary and general counsel and Adolph Wolff, assistant treasurer.

Sales for the past seven years under the present management, according to Mr. Clough's report to stockholders, have increased 182 per cent., while net profits rose 273 per cent. This year, the president stated, January sales were 16 per cent. ahead of January, 1939; February sales were 19 per cent. greater than the corresponding month of last year, while the first 15 days of March show an increase of 23½ per cent.

Other outstanding achievements during the seven-year period, as reported, include the increase in the number of employees from 787 in 1933, to 2145 at the present time; the establishment of six new domestic branches, five foreign subsidiaries and five foreign branches; the addition of over 250 new items to the list of products; the addition of many thousand square feet of floor space to the North Chicago plant, and the building of a $500,000 new, modern research building.

With a 66-37 victory over the Governors Island Champions the Leigh Cosmetics team of basket ball players finished off a 21 game schedule without a single loss to mar their 1939-1940 record. Among the opposing teams beaten were: Teachers College, Uptown Y.M.C.A., Madison Square Boys' Club, I.C.A.A. All Stars, Fort Jay Medical Corps., Rutgers A. C., St. George Big Five, and in addition topped the West Side C. Y. O. League. In honor of their successful season Jordan W. Lambert, President of Leigh Cosmetics, Inc., tendered a dinner to the team at the Hotel Belvedere and afterwards attended the Finals of the Invitation Basket Ball Tournament at Madison Square Garden. William H. Hardy, Vice-President of the company acted as team manager.

Vaughn Joins Sagamor

Ralph Vaughn has joined Sagamor Metal Goods Corp., New York, and has been elected vice-president in charge of

RALPH VAUGHN

sales. Mr. Vaughn was until recently eastern district sales manager for Schick Dry Shaver Inc.

Crawford Joins Armstrong

The advertising staff of Armstrong Cork Co., Lancaster, Pa., has been augmented by John P. Crawford, formerly of General Foods Sales Co.; Angus W. Clarke, Jr., former assistant advertising manager, Mohawk Carpet Mills; John F. Riebow, formerly with Eastern Air Lines; and Edward W. Hermann, formerly with the Chilton Publishing Co.

Garland Named S. & D. Director

C. S. Garland has been elected a director and a member of the executive committee of Sharp & Dohme, Inc., Philadelphia. He succeeds Thomas Hildt.

Lambert Opens New Plant

Lambert Pharmacal Co. opened its new manufacturing Laboratory in St. Louis March 28. That evening a dinner was given for employees at which special honor was paid to three employees who have been with the company for over fifty years. There were twenty-nine other employees who had service records of over twenty-years.

This new plant is about the same size as the one in Jersey City.

McKesson Sells Hunter Rye

Sale of the principal assets of Hunter Baltimore Rye Distillery, Inc., subsidiary of McKesson & Robbins, to Browne Vintners Co., Inc., for a cash price of $2,000,000 was approved March 29 by Judge Alfred C. Coxe in Federal District Court.

William J. Wardall, trustee, pointed out that the terms of sale included the retention by the drug firm of cash, receivables and stocks of finished goods having a book value of approximately $800,000. McKesson will act as wholesaler of the whiskies made by the new Hunter owner.

Innis-Speiden Retirement

Innis-Speiden & Co., New York, has instituted a retirement program for its employees. The plan is being administered by the Metropolitan Life Insurance Co. and provides for retirement at the age of sixty-five with an income for life. Contributions to the plan are being made by the company and by about one hundred fifty employees covered by it.

Pinkham Fight Again

Lydia P. Gove, Rae E. Renehan and Mildred A. Wilder, one faction of the stockholders of the Lydia E. Pinkham Medicine Co., have brought action in the state of Maine to force the firm into receivership.

This same faction recently lost a dispute in the Massachusetts Supreme Court when the court ordered Lydia P. Gove, treasurer, to pay a number of salary increases approved by Arthur Pinkham, president. Miss Gove was also ordered to pay $1,250 a month as counsel fees to John P. Worthen, engaged by Mr. Pinkham.

Henderson Leaves Allied Products

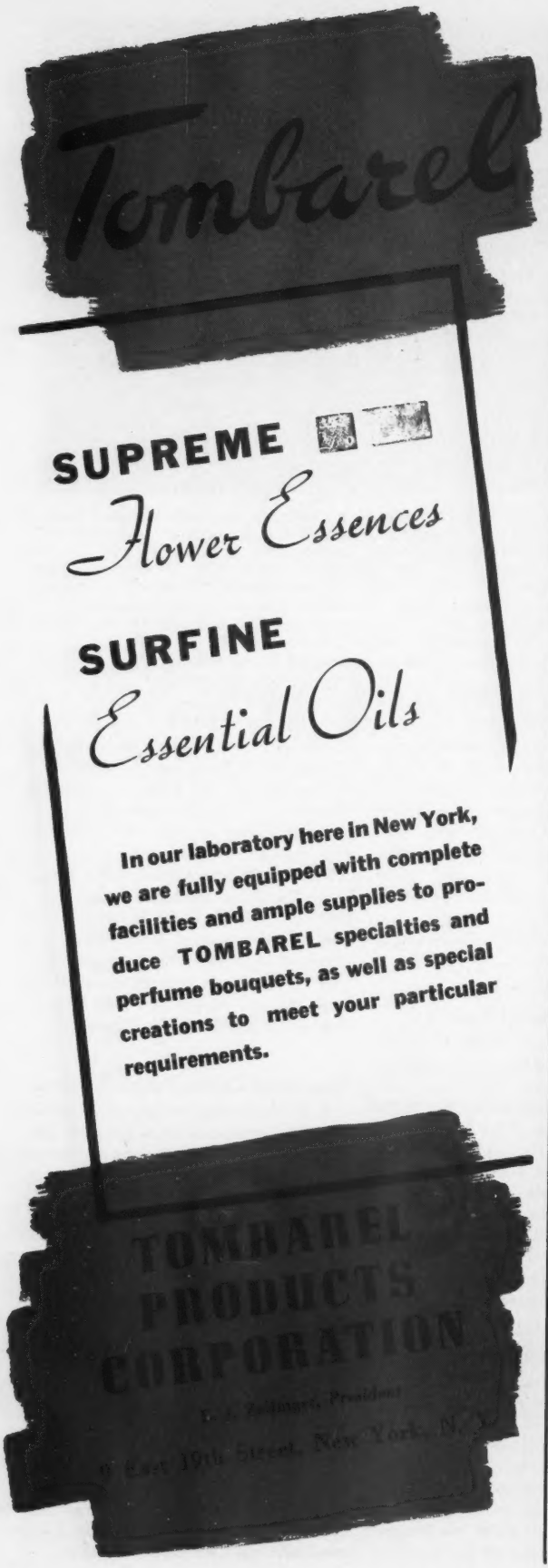
A. D. Henderson, manager of the private brand department of Allied Products, Inc., New York, has resigned. John E. Gabrielsen, who has been with Allied Products for many years, is the new manager of the private brand department.

Bristol-Myers Recreation Bldg.

Bristol-Myers & Co. dedicated its new recreation building at the Hillside, N. J., plant, April 5. There was entertainment and dancing and Governor A. Harry Moore of New Jersey spoke.

Simons Heads Charles Hubbard

Philip J. Simons, Jr., has been elected president of Charles Hubbard, Son & Co., Syracuse, N. Y. He was formerly secretary and treasurer. Lucius S. Johnson, former president, has been elected secretary.


Tombarel
SUPREME
Flower Essences
SURFINE
Essential Oils
In our laboratory here in New York, we are fully equipped with complete facilities and ample supplies to produce TOMBAREL specialties and perfume bouquets, as well as special creations to meet your particular requirements.
TOMBAREL
PRODUCTS
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POWCO BRAND
REG. U.S. PAT. OFF.

Better Quality at a Saving!

Soap to the layman means simply something with which to make a lather.

To the dentifrice manufacturer it can mean a calamity if the chemical or physical characteristics vary the slightest.

No one soap can suit the needs of the many formulas used. That is why POWCO Brand Neutral Soaps, *made from refined edible oils,* cover a wide range of titres, etc., for your especial needs.

Our large quantity production and our close selling margin make it possible for you to buy standardized air-floated POWCO Brand Neutral Soaps of *better quality ---at a saving.*

John Powell & Co., Inc.
114 East 32nd St. New York City

Tested Quince Seed
Powdered Neutral Soaps
Concentrated Shaving Cream Base

VIEW SHOWING ABOUT HALF THE MEN PRESENT AT THE 15TH DINNER OF THE DRUG, CHEMICAL, AND ALLIED TRADES SECTION OF THE NEW YORK BOARD OF TRADE

Senator Nye addressing the recent Drug and Chemical Dinner in New York. Seated in the front row are: J. A. Huisking, Phillip Dinkins, Chairman, R. E. Dorland, Vice-chairman, John Tuohey. Second row: Dr. E. L. Newcomb, Dr. F. J. Cullen, C. P. Frailey, Carl Anderson, S. B. Penick Jr., Photo by Charles Opitz, of John Opitz, Inc.

J. T. Baker Fellowships

The J. T. Baker Chemical Co. has announced that their Eastern and Mid-Western fellowships for research in analytical chemistry are now open for 1940-41. The object of these fellowships is to encourage and assist fundamental research in analytical chemistry. The recipients will each receive $1,000 annually, and will be expected to devote at least nine months to research in an institution conferring the Ph.D. or Sc.D. degree in chemistry.

A candidate for these fellowships must possess a bachelor's degree or its equivalent, and a broad training in the fundamental branches of chemistry including inorganic, organic and physical chemistry, as well as qualitative and quantitative analysis.

The Eastern fellowship award will be in an institution in one of the New England States or New York, New Jersey, Pennsylvania, Delaware, Maryland or Virginia. The Eastern fellowship committee consists of N. H. Furman, chairman, Princeton University; J. H. Yoe, secretary, University of Virginia; G. P. Baxter, Harvard University; H. A. Fales, Columbia University; and C. W. Mason, Cornell University.

The Mid-Western fellowship award will be in an institution in one of the following States: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio or Wisconsin. The Western Fellowship Committee consists of H. H. Willard, chairman, University of Michigan; C. W. Foulk, Ohio State University; G. Frederick Smith, University of Illinois; I. M. Kolthoff, University of Minnesota; and V. W. Meloche, University of Wisconsin.

Dow Service Pins

Willard H. Dow, president and general manager of the Dow Chemical Co., Midland, Mich. presented service awards to 175 employees of long standing on March 4.

Of the 175 employees honored, five had been with the company fifty years; eleven, thirty-five years; ten, thirty years; forty-two, twenty-five years; one hundred seven, twenty years. Gold watches en-

graved with the employee's name, date of the presentation and date that he joined the company were given to the sixteen men with thirty-five years or more of unbroken service. Awards for twenty years of unbroken service went to 106 men and one woman, and consisted of gold pins bearing the "Dow Diamond" and four raised gold stars, each signifying five years of service. For more than twenty years' service, similar pins were awarded, with the addition of a diamond star at the top for each five years' service.

Park Joins Luft

Stanley Park has joined the George W. Luft Co., Long Island City, as assistant sales manager, replacing H. R. Upton, who has resigned. Mr. Park was formerly with Northam Warren and the Mennen Co. B. G. Merrill has also been made an assistant sales manager. He has been with the company for some time.

Sterling Buys Cummer

Sterling Products, Inc., Wheeling, W. Va., has purchased the Cummer Products Co., Bedford, Ohio, manufacturer of Molle shaving cream, Energine cleaning fluid and Kling. Sterling Products gave a cash sum and $2,000,000 in notes for the assets of the company.

American Home Buys Antrol

American Home Products, Jersey City, has taken over the assets of Antrol Laboratories, Inc., insecticide manufacturer, Los Angeles.

Monsanto and Merck Win Awards

In a contest conducted by the House Magazine Institute the "Monsanto Magazine," published by the Monsanto Chemical Co. was judged the best house magazine in the internal field. In the external field the "Merck Report," published by Merck & Co. was tied for third place with the International Nickel Co.'s "Inco."

Crosby to Manage Rena

Frank C. Crosby has been appointed general manager of Rena Cosmetics Enterprises, Hollywood, Calif. Mr. Crosby has been active in the drug and cosmetic industries for the past seventeen years.

ADVERTISEMENT—*This entire page is a paid advertisement.* *Prepared Monthly by U. S. Industrial Chemicals, Inc.*

USI ALCOHOL NEWS USI

April ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1940

Alcohol Has Many Applications in Shoe Manufacture

Finds Diversified Uses in Fields Of Real and Fabricated Leather

Diversity of application has made alcohol an indispensable material in the manufacture of shoes from both real and artificial leather. In the initial steps of the shoe manufacturing process, it is employed in tanning processes in the case of real leathers, while it is an essential component of the coating compositions used in making fabricated leather.

Alcohol finds extensive use in the production of patent, glazed, and lacquered leathers, and is an ingredient of shoe dyes. Still another application is in the preparation of the lacquers used on eyelets and shoe-lace tips. Insoles made from synthetic split leather produced by the pyroxylin process offer another use for alcohol.

An interesting flow sheet traces the manufacture of Industrial Ethyl Alcohol from the planting of the sugar cane and corn to the final product. Copies of this flow sheet may be obtained free of charge by writing U.S.I. Ask for Bulletin AM.

Dr. H. L. Fisher of U.S.I. Receives Pioneer Award

NEW YORK, N. Y.—Dr. Harry L. Fisher, of U. S. Industrial Chemicals, Inc., was selected as one of the Modern Pioneers recently honored by the National Association of Manufacturers.

Dr. Fisher was chosen for this honor because of his outstanding achievements in the field of rubber chemistry and technology. He holds many patents in this field, the most notable being those covering materials used for adhering rubber to metal, as well as a process for their application, all of which have made possible substantial savings in cost, together with greater safety in handling chemical solutions.

Dr. Fisher is an authority on non-sulphur vulcanization of rubber. He has patented several processes in this field, and delivered a paper on the subject at the Goodyear Centennial Celebration of the American Chemical Society last fall. He is the author of "Laboratory Manual of Organic Chemistry."

Dr. Fisher joined the staff of U.S.I. in 1936, and makes his headquarters at the company's research laboratories in Stamford, Conn.

Uses Vinegar Addition in Alcoholic Massage Creams

WASHINGTON, D. C.—The addition of small quantities of white vinegar to alcohol makes it possible to combine the alcohol with a toilet cream to form a massage cream that gives a rollable film, it is claimed in a patent issued to an inventor here.

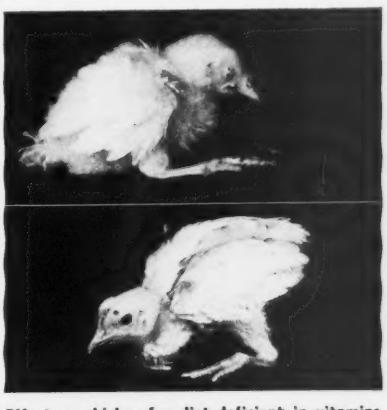
A low molecular fruit acid, such as citric or tartaric, may be used in place of the vinegar, it is said.

Bacteria Replace Rats in Making Accurate Tests for Riboflavin

U.S.I. Makes Extensive Use of Snell-Strong Assay Method In Controlling Quality of Vitamin Concentrate Production

Extraordinary accuracy in assaying the potency of riboflavin concentrates, together with marked savings in time, has been made possible by the perfection of an assay method based on the effect of riboflavin on lactic acid organisms.

In pioneering activities in the vitamin field, the most commonly used testing method involved studying the growth of white rats over a four-weeks' period. Discovery of the fact that the lactic acid organisms need riboflavin for their growth led to the extended application of the Snell-Strong method. This method has been used almost exclusively by U.S.I.'s research staff in developing and controlling the quality of the company's flavin concentrate for use in mixed feeds.



Effect on chicks of a diet deficient in vitamins is illustrated by these two photographs. Upper photograph shows effect of pantothenic acid deficiency; lower, riboflavin deficiency. (Courtesy of the Poultry Department, Cornell University.)

Delicate Response

The response of the lactic acid bacteria to riboflavin is amazingly delicate. In carrying out the test, a culture solution is first prepared. Riboflavin is carefully eliminated from this solution, which, however, is adequate in other respects. No bacterial growth occurs in this solution.

When pure crystalline vitamin is added, in amounts as small as 3 parts per 100,000,000, rapid bacterial growth begins. The solution becomes turbid, and lactic acid is formed in an amount corresponding to the vitamin addition.

Applicable to Pantothenic Acid

By suitable modifications of the culture medium, the same type of bacteria may be used to measure another vitamin, pantothenic acid, which was formerly assayed by chick tests. It is thus possible, in the case of these two important food factors, to substitute a bacterial culture for the rats used in the earlier tests. The time required by this method is measured in days instead of months. Re-

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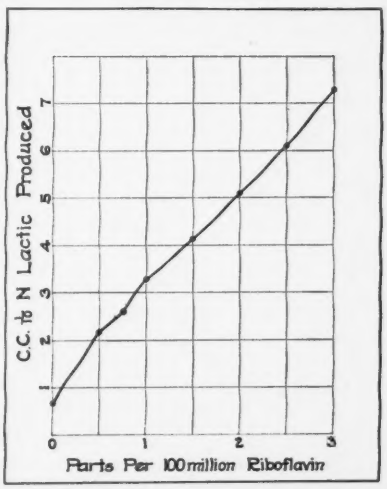


This curve, prepared from assay tests made by the U.S.I. laboratories, represents the average titration of individual 10cc. tubes of culture media containing the lactic acid organisms used in the assay. Tubes were prepared with various quantities of riboflavin as indicated in the graph. The effect of extremely small quantities of riboflavin is clearly indicated.

Make Emulsions Containing Large Amounts of Alcohol

WESTFIELD, N. J. — That thickening agents can be used to permit the preparation of emulsifying compounds containing as high as 50% of alcohol is claimed in a patent granted to inventors here and at Roselle Park, N. J.

Alcohol is ordinarily difficult to emulsify, it is said, particularly with mineral oil, but properly selected thickeners are reported to allow the preparation of emulsions containing large proportions of alcohol, and displaying good stability and durability.

A typical thickener can be produced by polymerizing such compounds as isobutylene at low temperatures in the presence of a catalyst, according to the patent. The process is said to be applicable to ethyl, methyl, propyl, and isopropyl alcohols.

Dyes, perfumes, medicaments, or materials to increase detergent properties can be added to the emulsions in small quantities, it is claimed.

Finds New Ergot Component

CATONSVILLE, Md.—A method for preparing a component of ergot described as hitherto unknown has been patented by an inventor here.

The new component can be prepared from crude ergot or from crude ergot extracts, it is said. Important step in the process is mixing the ergot with an aqueous alkaline solution and then extracting with a solvent such as ethyl ether or acetone.

Ethyl Ether and Acetone are produced by U.S.I.

ADVERTISEMENT—*This entire page is a paid advertisement.*

April ★ **ALCOHOL NEWS** ★ 1940

Improves Antiseptics with Ethyl and Benzyl Alcohols

NEWARK, N. J.—How improved antiseptic preparations can be made by using a solvent consisting of ethyl and benzyl alcohols is revealed in a patent granted to an inventor here.

In these preparations the ethyl alcohol is said to act as a primary solvent and the benzyl alcohol as a secondary solvent. Choice of these two solvents is based on the fact that the primary solvent must dissolve both the antiseptic compound and the secondary solvent. The secondary solvent must be one in which the antiseptic compound is more soluble than it is in the primary solvent. Secondary solvent must also be substantially insoluble in aqueous media.

Colloidal Dispersion Formed

When antiseptic preparations of this type are diluted in aqueous media, the secondary solvent apparently becomes colloidally dispersed and carries with it in solution the bulk of the antiseptic compound, according to the patent. The antiseptic compound is much more effective as a germicide in this colloidal suspension, it is claimed.

Percentages for a typical preparation are given as follows:

Ethyl alcohol	50
Benzyl alcohol	8
Isopropyl alcohol	10
Ortho-phenylphenol	1
Chrysoidin-y	0.2
Water, to make	100

The isopropyl alcohol is said to serve as a defatting agent that enables the antiseptic to penetrate fatty tissue with greater ease.

Ethyl Alcohol is produced by U.S.I.
Isopropyl Alcohol is sold by U.S.I.

Uses Alcohol to Make Wadding

WEINHEIM, Germany — Absorbent wadding suitable for surgical purposes can be prepared by converting animal hide material into a swollen condition in which the fibers can be mechanically isolated, then shredding and treating the resulting coarse fibrous material with alcohol or acetone, according to a U. S. patent issued to an inventor here.

Alcohol and Acetone are produced by U.S.I.

Gives Dry Shampoo Formula

A basic formula for a "dry" shampoo has the following proportions, according to *Soap, Perfumery and Cosmetics:*

	Parts
Ammonia solution	3
Eau-de-Cologne compound	2
Denatured alcohol	45
Distilled water	50

Sterilize Many Materials By Using Ethylene Oxide

CHICAGO, Ill.—That ethylene oxide, widely used for its insecticidal properties, is adaptable to sterilization processes also is revealed in three patents granted to two inventors here.

Basis of the process is said to consist in first activating the material to be sterilized by subjecting it to a vacuum, usually with preliminary heating. Undiluted ethylene oxide is then introduced at concentrations high enough to effect sterilization.

Special advantage of the process, it is claimed, is that it allows sterilization of gums, gelatin, pectin, pancreatin, etc., without adverse effect on viscosity and other desirable characteristics. Suggested fields of application include foods, drugs and medicines, dentrifices, finished cosmetics and cosmetic ingredients.

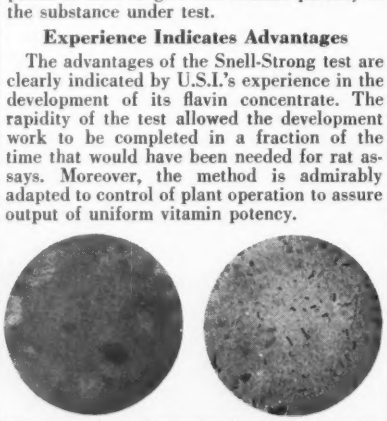
Snell-Strong Test Gives Accurate Riboflavin Assay

(Continued from previous page)

sults are more consistent and reliable, since the number of tests can be greatly increased. A further advantage over purely chemical methods is that the reaction of living protoplasm is used to give the vitamin potency of the substance under test.

Experience Indicates Advantages

The advantages of the Snell-Strong test are clearly indicated by U.S.I.'s experience in the development of its flavin concentrate. The rapidity of the test allowed the development work to be completed in a fraction of the time that would have been needed for rat assays. Moreover, the method is admirably adapted to control of plant operation to assure output of uniform vitamin potency.



These two photomicrographs illustrate the application of the Snell-Strong test in the assay of vitamins. The two culture solutions are identical in all respects, except that riboflavin has been added to the solution at the right in the proportion of 3 parts per 100,000,000. There is not a single organism in the culture at the left. In the one at the right, bacteria are to be found in large numbers.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

A cosmetic material is described as consisting of the isopropyl esters of fatty acids, chiefly myristic and palmitic. When rubbed into the skin, it gives a smooth, velvety feeling without leaving a greasy surface, according to the maker, who recommends it for use in hand creams, brushless shaving creams, lotions, and many other products. **(No. 320a)**

U S I

A sealing compound for flowed-in gaskets in closures is said to resist oil. Oily products have been kept under this seal for more than a year, the maker states. **(No. 321a)**

U S I

A new ointment is said to be of a white coal tar type, which does not stain clothing or skin, nor give off an unpleasant odor. It is reported to replace black coal tar ointment where this type of treatment is indicated. **(No. 322a)**

U S I

An absorption base now being produced by a domestic manufacturer is said to be equal in every respect to the imported base previously distributed by the same company. **(No. 323a)**

U S I

Grape seed oil is said to be suitable for use in creams, lotions, lather and brushless shaving creams, and other products where a fixed oil is needed. It is almost odorless and colorless and has excellent keeping qualities, it is claimed. **(No. 324a)**

U S I

A micro balance now on the market is reported to be made domestically and to be sensitive to 0.001 mg. It is said to be equipped with a metal case that provides stability and resistance to vibration. **(No. 325a)**

U S I

A new fixative for pine odors is composed of natural pine derivatives, according to the manufacturer. It is said to aid in extending aromatic life of the usual pine constituents. **(No. 326a)**

U S I

A melting unit is said to be especially suitable for melting wax, gummy or viscous substances, and other materials where it is desired to prevent contamination of the substances by metal. **(No. 327a)**

U S I

A new emulsifier is described as a wax-like product especially developed for the preparation of greaseless creams having an acid reaction. It is said to give stable emulsions in the presence of such acids as citric, lactic, and salicylic. **(No. 328a)**

U S I

Heating kettles of aluminum are said to be light in weight and to be suitable for a wide variety of melting and emulsifying applications. **(No. 329a)**

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Dimethyl Phthalate

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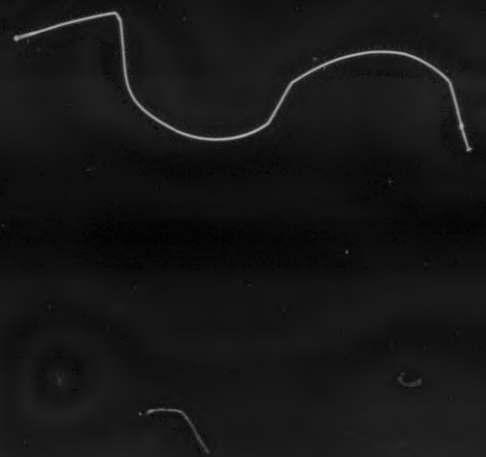
Acetoacet-o-chloranilid
Acetoacet-o-toluidid
Ethyl Acetoacetate
Sodium Ethyl Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone, C.P.
Collodions
*Curbay Binders
*Curbay X (Powder)
Derex
Ethylene
Methyl Acetone
Nitrocellulose Solutions
Potash, Agricultural
*Vacotone
*Curbay B-G



James T. Pardee Named Doctor

James T. Pardee, chairman of the board and vice-president of Dow Chemical Co., Midland, Mich., has been honored by the Case School of Applied Science, Cleveland, with the degree of doctor of commercial science.

Mr. Pardee was born in Cleveland and is a graduate of the Case School where he earned the degree of Bachelor of Science in Civil Engineering. He has been associated with Dow since 1895.

Hygienic Tube Expansion

Work has been started on an addition to the factory of Hygienic Tube & Container Corp. in Newark. The new plant which will cost approximately $750,000 will be ready for production about October 1. It will give the company greatly increased

Left to right: Herman B. Lermer, Horace H. B. Allen, Joseph Lermer, Founder; Julius Silver, Irving S. Lermer.

production facilities and it is planned to add many new products to the line.

A display room and offices are maintained at 626 Fifth Ave., New York. Herman B. Lermer is president and treasurer; Irving S. Lermer and Horace R. B. Allen are vice-presidents and Julius Silver is secretary and general counsel.

Vick Names High Gen. Sales Mgr.

Hermon A. High has been named general sales manager of Vick Chemical Co. Mr. High has been associated with the company for eleven years and has served as Canadian manager, trade relations manager and northern sales manager.

R. D. Waters and H. R. Marschalk have been promoted to assistant sales managers.

Fred Mingst Joins Pfaltz & Bauer

Fred Mingst has joined the sales staff of Pfaltz & Bauer, Inc., where he will work principally on wool-development products.

Squibb Moves Dahl to N. Y.

R. J. Dahl, professional service manager for E. R. Squibb & Sons in the Baltimore district has been transferred to the product sales department of the New York office. He has been succeeded in Baltimore by Garrett E. Miller, formerly sales representative in the Bethlehem-Allentown, Pa., territory.

Carl A. Claus, Vice-President in charge of Sales for New Jersey Machine Corporation, of Hoboken, receives his commission as "Admiral of the Flagship Fleet"—the commission marking completion of more than 100,000 flying miles via "American Airways."

Coty at the 1940 Fair

Maison Coty will greet the opening of the World's Fair of 1940, in New York, with a new make-up, according to H. L. Brooks, president. Thousands of dollars will be devoted to expanding and animating the exhibit. The huge focal center will be completely reconstructed. Colored lights will play on a tall mirrored shaft rising from a center-piece of glass showcases. Circular booths will feature airspun powder production. A new process of lipstick fabrication will highlight the area formerly devoted to raw material display and the 1939 cosmetic parlor will be converted and enlarged into a chamber for perfumes. A series of mirrors, covering the whole interior, will reflect the images of beautiful models demonstrating the art of applying make-up. A 12 minute film of sound and color, will project phases of the scent industry in the Coty Theatre.

Givaudan-Delawanna Moves

After May 20 the executive officers and service laboratories of Givaudan-Delawanna, Inc. will be located at 330 West 42 St., New York, in the McGraw-Hill Building. The growth and development of the organization has made necessary this move to larger quarters.

Greeff To Radio City

R. W. Greeff & Co., New York, have moved their offices to larger space at 10 Rockefeller Plaza, in Radio City. New telephone number is CIrcle 6-9680.

Lentheric vs. Grant

The New York Court of Appeals affirmed unanimously without opinion the decision of the Appellate Division of the Supreme Court of the State of New York n Lentheric, Inc. vs. W. T. Grant Co., enjoining that company from selling rebottled vials of Lentheric Bouquet products at less than the minimum price of $.50 per ounce, established under the Fair Trade Act of the State of New York. This effectively establishes that sales by chain stores of small vials of Lentheric Bouquet products, containing less than one ounce, at less that $.50 per vial, are in violation of the Fair Trade Act of New York.

Rogers, Hoge & Hills

The firm name of Rogers, Ramsay & Hoge has been changed to Rogers, Hoge & Hills. James F. Hoge in announcing the change points out that it is in name only and that there has been no change in the firm since just after Mr. Ramsay's death, when, one year ago, Mr. Hills became a partner of Mr. Rogers and Mr. Hoge.

Standard Products Co.

Standard Products Co., Inc., Philadelphia, has taken over quarters in Baltimore, formerly occupied by Modern Drug and Chemical Co., at 921 S. Caroline St., and is manufacturing a line of drugs and pharmaceuticals there.

Son to Antoine Chiris

Mr. and Mrs. Leon Antoine Chiris have announced the birth of a son early in March. This is their second son and third child. Mr. Chiris is chairman of the board of Anotine Chiris Co., New York, and Administrateur-Delegue of Ets. Antoine Chiris, Grasse, France.

Baumhogger & Keim to Serve

Walter G. Baumhogger, president of the Whelan Drug Co., and R. D. Keim, vice-president of E. R. Squibb & Sons, have been appointed chairman and vice-chairman respectively of the drugs and pharmaceuticals section for the 1940 campaign of the Greater New York Fund. The third annual drive for the fund was opened April 1 with a town meeting in Madison Square Garden.

Squibb Hobby Show

The third annual hobby show of employees of E. R. Squibb & Sons was held in New York March 16. About fifty employees participated. L. Arranz who has become well-known for his "humanistic abstractions" exhibited some of his paintings. D. M. Kendall, exhibited a short wave broadcasting and receiving set; Dr. H. S. Newcomer of the Squibb Professional

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This unbreakability of LUSTEROID naturally means big savings in breakage elimination. It brings other savings, too, such as reducing shipping costs by reducing weight, and eliminating the necessity of costly and heavy wadding and packing.

LUSTEROID tubes and vials come in any color you wish—and multicolor labels are processed *integrally* to them in their manufacture, eliminating extra paper, printing, pasting costs.

A note or phone call will bring an immediate reply with samples.

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Beehive Brand Beeswax is 100% pure, it is uniform in texture and perfectly white. Our buyers select it from the finest grade of crude beeswax. It is then tested for purity, quality and uniformity in our own laboratories, and bleached by the sun and air.

Uniformity of Beehive Brand Beeswax will keep your product always up to the high standard you set for it. The quality and uniformity never change. It is entirely free from adulterants and imperfections of any kind. And back of every tablet of Beehive Brand Beeswax stands the reputation of the manufacturer.

WRITE DEPT. D-4 TODAY FOR COMPLETE INFORMATION

Service department a deep sea diving outfit and R. E. Crawford of Squibb Laboratories plants which he had stimulated with Vitamin B_1.

Financial

American Cyanamid Earnings Up

American Cyanamid Co. reports for 1939 a net income of $5,524,940, equal to $2.07 each on 2,618,367 shares, and comparing with $2,452,911, or 91 cents a share in 1938. The balance sheet of the company for 1939 shows current assets of $39,445,229, and current liabilities of $9,040,125, compared with $33,653,471 and $5,513,595, respectively, on December 31, 1938.

Armstrong Cork Multiplies Net

Armstrong Cork Co. reports for 1939 a net income of $4,485,000.37, equivalent to $3.03 a share and comparing with $1,150,795.74, or 77 cents a share in 1938.

Net income of the company's domestic operations in 1939 was $4,440,194, against $992,014 in 1938. Domestic sales in 1939 were $50,713,436, compared with $37,297,363 in 1938, an increase of 36 per cent.

The company's foreign investment including all its foreign operations was $3,884,749.53 on December 31, 1939, against $3,657,453 the year before.

J. T. Baker Earns More

J. T. Baker Chemical Co. reports for 1939 a net profit of $267,344, equal to $2.10 each on 109,707 shares of common stock, and comparing with a net profit of $53,907, or 15 cents a share in 1938.

Bourjois Net Up

Bourjois Inc. and subsidiaries report for 1939 a net income of $707,435, equal to $1.50 each on 392,224 no-par common shares. In 1938 the net income was $411,079, or 74 cents a common share. As of December 31, 1939 current assets were $2,905,947 and current liabilities were $1,286,396, against $2,230,573 and $794,157 respectively at the close of 1938.

Chesebrough Profit Greater

Chesebrough Mfg. Co. reports for 1939 a net profit of $944,457, equal to $7.87 each on 120,000 shares of $25-par capital stock, against $638,514, or $5.32 a share in 1938.

Coty Earnings Up 50%

Coty Inc. reports for 1939 a net profit of $937,610, equivalent to 61 cents each on 1,537,435 shares and comparing with $636,402, or 41 cents in 1938. At the year's end current assets were $3,954,642, current liabilities $544,600, against $4,387,329 and $528,048 respectively at the end of 1938.

Crown Cork Earns More

Crown Cork and Seal Co. reports that during 1939 net sales totaled $28,233,361, against $24,379,811 in 1938. Crown Can Co., a subsidiary, had a loss of $550,419 in 1939 before profits arising from manufacturing of bottle caps in its St. Louis plant. This compares with a loss of $1,125,633 in 1938.

Dow Earnings Doubled

Dow Chemical Co. reports for the nine months ended February 29 a net profit of $5,495,945, against $2,440,560 in the corresponding nine months of the previous year. This is equal to $5.11 each on 1,031,988 shares of no-par common stock against $2.30 for the nine months ended February 28, 1939.

At a meeting of the board of directors held March 26 dividends were declared as follows payable May 15: on preferred stock 1¼ per cent.; on common stock without par value 75 cents a share.

Gillette Earnings Increase

Gillette Safety Razor Co. reports for 1939 a net income of $3,284,797, equal to 89 cents each on 1,998,769 shares of no-par common stock and comparing with $2,941,890, or 72 cents a common share in 1938.

Heyden Doubles Net

Heyden Chemical Corp. reports for 1939 a net profit of $772,903, equal to $5.98 each on 125,497 shares $10—par common stock and comparing with $331,458, or $2.06 each on 149,997 shares in 1938. Current assets as of Dec. 31, 1939, were $1,282,218 and current liabilities $826,060, against $1,277,410 and $303,068 respectively at the end of 1938.

Kendall Earns $934,043

Kendall Co. and subsidiaries report for 1939 a net profit of $934,043, compared with $98,166 in 1938. The net sales were $24,886,546 against $21,598,338 the previous year.

Lehn & Fink Net Up

Lehn & Fink Products Corp. reports for 1939 a net income of $624,661, equal to $1.56 each on 400,000 shares of capital stock, against $420,414, or $1.05 a share in 1938.

Plough Profit Up

Plough Inc., and subsidiaries report for 1939 a net profit of $253,694, equal to 84 cents each on 300,000 shares of $7.50 par capital stock, against $201,287, or 67 cents a share in 1938.

Rubinstein Doubles Net

Helena Rubinstein, Inc. and subsidiaries report for 1939 a net profit of $456,987, after Canadian exchange adjustments, equal to $2.26 each on 157,658 no-par shares of common stock, against a net profit of $218,908, or 75 cents, in 1938.

Scovill Earns $1,768,808

Scovill Manufacturing Co. and subsidiaries report for 1939 a net profit of $1,768,808, contrasted with a net loss of $31,920 in 1938.

A new method of computing inventories this year resulted in a net profit about $365,000 less than would have been shown by the use of the former method.

U. S. Alcohol Earns $337,392

United States Industrial Alcohol Co. reports a final net profit, after $337,392 deduction for adjustment of marketable securities, of $77,525, or 20 cents a share. In 1938 the company reported a net loss of $667,657 after crediting $747,504 for adjustment of marketable securities and deducting $993,402 for extraordinary write-down of inventories.

Net sales for the year were $11,908,939, an increase of 25.5 per cent. from $9,490,966 during 1938. Chemical sales, consisting of products exclusive of industrial ethyl alcohol, rose 73.7 per cent. and accounted for more than half of the total sales.

Obituaries

James A. Black

James A. Black, associated with Hynson, Westcott & Dunning, Inc., Baltimore, for many years, died suddenly March 20. He was fifty-three years old.

William Bodebender

William Bodebender, for more than thirty years a representative of Fritzsche Brothers, Inc., died suddenly March 20 at his home in New Orleans. Mr. Bodebender retired from active business several years ago.

Thomas J. Lynch

Thomas J. Lynch for twenty-nine years general manager of Lederle Laboratories, New York, died of a heart ailment at his home in New York. He was sixty-eight years old. Before joining the Lederle organization he was associated with the Alexander Laboratories, Marietta, Pa. Lederle Laboratories has been a subsidiary of American Cyanamid since 1930. Mr. Lynch retired from active business in 1936.

Charles W. Potter

Charles W. Potter, formerly a member of the sales staff of Thurston & Braidich, Inc., New York, died March 10 in Cleveland at the home of his son.

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INDUSTRY'S BOOKS

Any book reviewed in this section can be purchased direct from THE DRUG AND COSMETIC INDUSTRY at regular publisher's price.

Medicolegal Phases Of Occupational Diseases, by C. O. Sappington, A.B., M.D., Dr. P. H., 405 pp., Industrial Health Services, Chicago, semi-flexible binding $3.00, certified library binding, $3.25.

This is an outline and guide to give attorneys; courts, commissions and boards; employers and employees; physicians and industrial nurses; engineers and industrial hygienists; insurance companies, and legislatures, an understanding of this subject, and opens up a new field for many of them and provides additional information for others. Its purpose has been to clarify the increasing number of laws in the various states providing for compensation for disability from occupational diseases, and the medicolegal problems involved in the prevention and adjudication of such cases. The work is divided into four main parts as follows: Industrial, Insurance, Medical, Legal.

Vitamin E, 88 pp., Society of Chemical Industry, London, Cloth, $1.00.

This is a monograph, representing the proceedings of the symposium held under the auspices of The Food Group, (Nutrition Panel) of the Society of Chemical Industry at the School of Hygiene and Tropical Medicine, London. This constitutes a valuable summary of knowledge in a highly important biochemical field. Although this knowledge is in a state of rapid development a periodic survey is none the less essential to further progress. The book is divided into three parts as follows: Part I—The Chemical Structure and Properties of Tocopherol (Vitamin E); Part II—The Physiological Action of Vitamin E And The Consequences of Vitamin E Deficiency; Part III—Clinical And Veterinary Uses of Wheat Germ Oil And Vitamin E Preparations.

Manufacturers' Product, Package And Price Policies, by Albert Wesley Frey, M.C.S., 429 pp., The Ronald Press Co., New York, cloth, $4.50.

This book describes and analyzes policies and practices which manufacturers have developed in their solution of vital product, price, and package problems. These policies and practices are considered to fall within, and to constitute, an activity in the field of manufacturing to which the term "merchandising" or "merchandise management" is being increasingly applied. This book will fill a need felt by the executive who wishes to review and check his own merchandise organization, policies, and procedures, and by the executive who is faced with specific problems of a merchandising nature. Contents include: Chapter 1—Merchandising; 2—Pricing The Product; 3—Quality of the Product; 4—Influences Affecting Standards; 5—Design, Style, Fashion; 6—Design, Style, Fashion (cont.); 7—The Design Piracy Problem; 8—Simplification; 9—Product Development—New Uses and Product Improvement; 10—Product Development—Expanding the Line; 11—Packaging the Product; 12—Packaging the Product (continued); 13—Identifying the Product; 14—Determination of Quantity to Manufacture; 15—Merchandising Research; 16—Merchandising Research (continued); 17—Organization for Merchandising.

Federal Regulatory Action And Control, by F. F. Blachly and M. E. Oatman, 356 pp., The Brookings Institution, Washington, Cloth, $3.00.

The belief is widely held that the present government agencies engaged in regulation, their organization, their methods and procedures, and their relationships to the President and the Courts can be greatly improved. This pressing and vital problem is dealt with in this new volume. Among the questions considered are: Should independent regulatory boards and commissions be abolished? Should the regulatory agencies remain independent? Is there "administrative absolutism"? Are constitutional rights of individuals protected in our present-day system of federal regulation? Should judicial control of administrative action be extended? Is it possible to simplify the regulatory system? Do we need a high administrative court?

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The Microscope, R. M. Allen, 286 pp., Illus., D. Van Nostrand Co., New York, Cloth, $3.00.

This book explains practical microscopy in plain English. It shows the use of each type of microscope—and all accessories—for the widest variety of purposes. In these pages, ready for instant reference, are all the facts for obtaining the best possible results in many operations from materials of all kinds. Contents: Historical Introduction; Optical Principles of the Microscope; Modern Instruments; Illumination; Testing of Microscope Objectives; Getting the Most Out of the Microscope; Preparation of Material for Microscopical Examination.

The Art of Anaesthesia, by Paluel J. Flagg, M.D., Sixth Edition Revised, Illus., 491 pp., Cloth, $6.00.

This sixth edition, like the first, is presented by the author "as a groundwork upon which the student, intern and general practitioner may acquire a more comprehensive knowledge of the Art of Anaesthesia." The chapter on Basal Anaesthesia has been enlarged to include the latest views relative to the barbiturates, avertine, paraldehyde, and other commonly employed hypnotics. A table has been prepared, listing barbiturate sedatives, hypnotics and the older drugs used for hypnosis such as morphine and hyoscine. For the assistance of the student, matter has been added including a form of pre-anaesthetic examination and a detailed consideration of the causes of death in anaesthesia. The various table positions in surgical practice have been revised and the dangers of the prone position as checked by Miller's Synchronous Pneumograph have been noted. Special reference is made to methods of anaesthesia for brain surgery and for thoracic surgery. Comments relative to the treatment of diabetic conditions since the introduction of insulin are presented. The usefulness of helium has been stressed. New drugs and comments relative to local or field block, regional or nerve block anaesthesia have been added. A chapter devoted to cyclopropane and to the carbon dioxide absorption technic as well as a reference to vinal ether have been added. In view of the increasing popularity of the use of the endotracheal technic, the art of laryngoscopy and intubation is discussed. Until recently varying degrees of asphyxiation were not formally recognized. A classification of the stages of asphyxia suggested by the author are now widely used in obstetrics has been included in the text. New methods of cardiac stimulation are noted.

Good Health And Bad Medicine, by Harold Aaron, M.D., 328 pp., Robert M. McBride & Co., New York, Cloth, $3.00.

Dr. Aaron, author of this work, is medical consultant to Consumers Union of U. S., Inc. The book is written for the general public. First aid, diet, obesity, tonics, colds, constipation, indigestion, insomnia, asthma, hay fever, skin disorders, care of the hair, safeguarding the teeth and gums, maladies of the feet, arthritis, rheumatism, and numerous other illnesses that the flesh is heir to are all examined. In each chapter the author mentions by brand name the best-known remedies, examines their claims, and gives his opinion as to their merit or lack of merit.

Trapping The Common Cold, by George Sanford Foster, M.D., 125 pp., Fleming H. Revell Co., New York, Cloth, $1.25.

A great deal has been written about the common cold. In this latest book Dr. Foster puts responsibility for avoiding colds directly up to the individual. The principles to observe and the rules to follow, if we would live year in and year out without a sneeze or snuffle, are put down in this book in language which every reader can understand. Contents: How to Avoid the Common Cold; The Value of Sleep; Begin Each Day Right; Live Each Day Right; Posture and Body Resistance; Influence of Diet; Briefs; Dress and What it Means; The Coldless Pathway; Health Day by Day; Some Cold Advice; Good Health Attainable by All; Healthful Hints.

Biological Products, by Louis Gershenfeld, P.D., B.Sc., Ph.M., 236 pp., Illus., Romaine Person Publishers, Inc., New York, Cloth, $4.00.

The publication of "Biological Products" represents the first and only complete authoritative volume on the subject. In great measure, the present volume grew out of the need discerned by the author in his field, for a sound, accurate and concise source of information on antitoxins, serums, vaccines, immunizing toxins and toxoids and bacterial culture filtrates, bacteriophage and phagotherapy, allergens and other biological products in common use in the field of remedial and preventive medicine. This volume has been especially designed as a convenient source of information for those in the allied Public Health professions and Medicine. Processes and methods of manufacture are included, together with illustrations which graphically depict the operations now employed in the industrial production of biological products. An index enhances the value of the test as a ready reference work. The author, whose experience in the field has been of many years' duration, has prepared a practical, accurate volume designed for a specific purpose.

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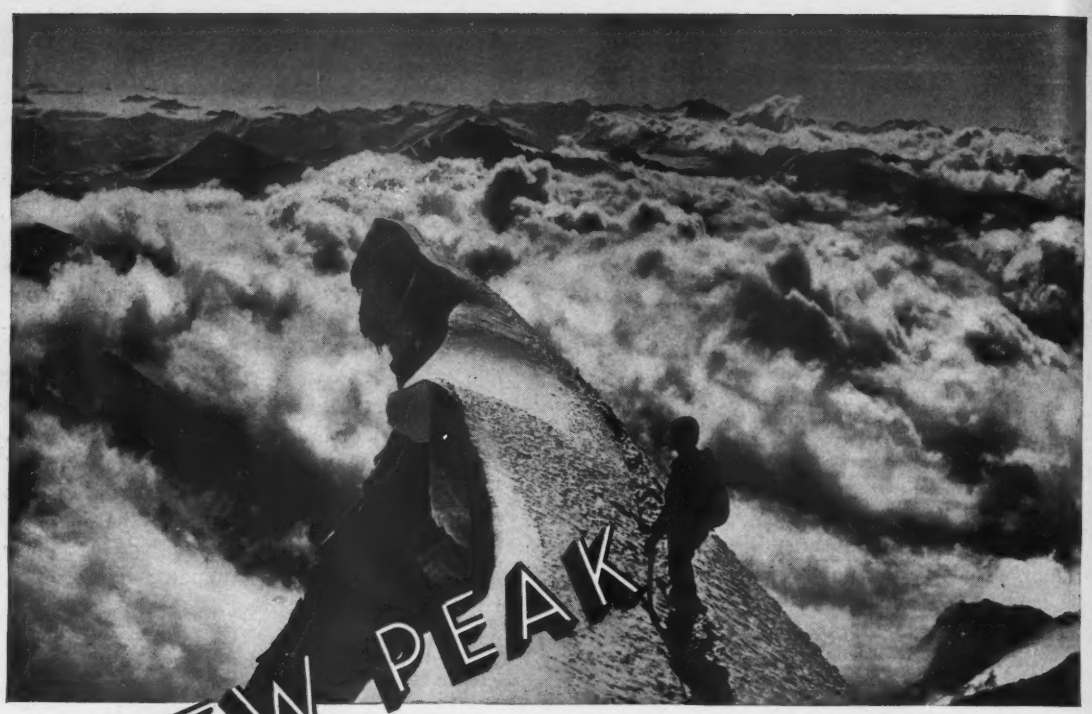

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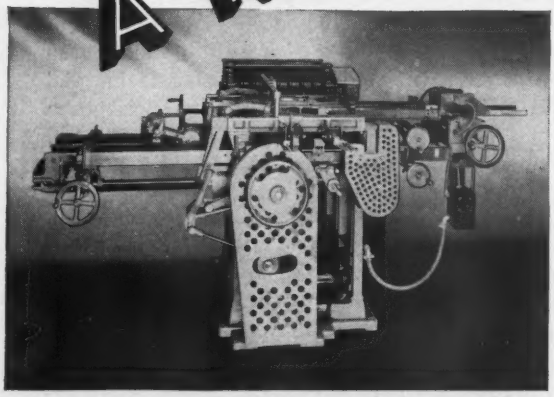

It's easy to see why so many manufacturers are installing the Model FA-Q in their plants. In the FA-Q, they find *versatility* at its peak of development . . . They also find that this machine hits the high mark in *size range* and *ease of operation*.

Wraps many different types of packages, including extension-edge boxes, open boats, and turned-up-side trays, as well as ordinary cartons. May be equipped to handle transparent cellulose, glassine, waxed paper, foil, or plain paper wrappers—with Electric Eye registration, if desired.

The FA-Q may be adjusted for different sized packages in only ten minutes. All parts are readily accessible. All adjustments are made by convenient hand-wheels—no tools required.

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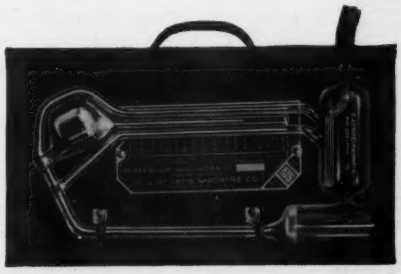
PRODUCTION FORUM

BY Francis Chilson
PRODUCTION ENGINEER

HIGH VACUUM GAUGE

The F. J. Stokes Machine Co., Philadelphia, has just announced a new model portable high vacuum gauge with a range from 0 to 700 microns and calibrated down to 1/10 micron. The gauge is similar to the original Stokes portable high vacuum gauge but it covers a narrower range for reading more accurately vacuums of 700 microns or lower. It is slightly larger and heavier and utilizes the same McLeod principle of operation. It is designed to enable any unskilled operator to take readings quickly and accurately and is built to withstand hard service and constant handling without danger of breakage or damage.

With this gauge single readings can be taken in a few seconds and a series of successive readings requires not



more than ten seconds each. The instrument is simply stood on a level surface, or mounted by means of a swivel bracket provided for the purpose, and then rotated from the horizontal (evacuated) position to the vertical (reading) position. The mercury in the right-hand capillary always comes up to the zero mark of its own accord.

There is no danger of the mercury "hammering" and breaking the tubing, since the speed of its flow when the gauge is rotated is controlled by a restriction in the tubing. A trap is provided to prevent the mercury from spilling out, no matter in what position the instrument may be held. This new gauge measures 7" x 13" x 2" and weighs about six pounds with mercury. It is equipped with non-breakable glass front, swivel bracket and carrying handle. Gauge tubing is heavy Pyrex glass, annealed to remove internal strain. Case is aluminum with black crackle finish.

LOCALIZING DUST COLLECTION

It frequently happens that a dusty operation is so remotely located from main dust exhaust ducts that it does not pay to collect the dust through the main system. For example, you may have a tablet dusting job to be done in the compressing room where no dust exhausts are available, or you may wish to collect dust from the mandrels of powder filling equipment. The Cincinnati Electrical Tool Co. in Cincinnati make a small filter unit called the Air Master which was developed primarily for attachment to grinding and buffing wheels.

This little job consists of a cabinet containing cloth filter bags mounted on a suitable framework and a totally enclosed fan. Dust laden air sucked into the unit passes through the filter bags and is discharged again into the room. The unit is very inexpensive and is recommended particularly in areas that are air conditioned from which the exhaust of a large quantity of dust laden air would impose too great a load on the air conditioning setup. With one of these units you could make a tablet cleaner very easily and you could even make it portable. For very light loads such as those

Improved 33-Punch "Rotary" Makes

1700 Tablets per minute . . .

This is a "Special" Stokes BB-2 Rotary Tablet Machine, similar to the standard machine except that it has a 33 hole head, with 33 pairs of punches and dies instead of the 27 with which the BB-2 is regularly equipped. As in other Stokes Rotary models of large capacity, each pair of punches produces two complete tablets at each revolution of the head.

This machine is making tablets of accurate weight at the rate of 1700 per minute. Maximum tablet size is 7/16" diameter.

It has an improved variable speed V-belt drive which is quickly adjustable and enables the machine to be operated at maximum production rates on tablets of different size and with materials of varying characteristics.

Other features include semi-steel construction, ample strength and ruggedness for continuous production, improved cams permitting smooth operation at higher speeds, means for adjusting for tablet weight and hardness while the machine is running.

Let us send complete description of this and other Stokes Tablet Machines.

F. J. STOKES MACHINE CO.

5932 Tabor Road Philadelphia, Pa.
Olney P. O.

Representatives in
New York, Chicago, Cincinnati, St. Louis, Cleveland, Detroit, Boston

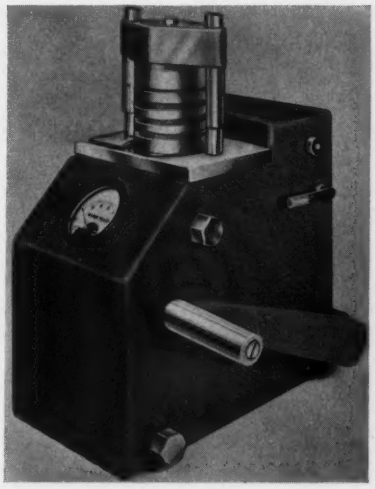
Pacific Coast Representative:
L. H. Butcher Company, Inc.

F.J.Stokes TABLET MACHINES PHARMACEUTICAL EQUIPMENT FJS Est. 1895

obtaining on a powder filling machine, a small portable tank type vacuum cleaner similar to those made by General Electric and other firms is effective and very inexpensive.

MOISTURE REGISTER

A unit for moisture testing granular, powdered, pelletted, and loose pulp materials is announced by the Moisture Register Co., 1029 N. Sycamore Ave., Los Angeles. This instrument is designed to give accurate indications of moisture content of granular or soft materials such as tablet granulations. It accomplishes in from one to three minutes tests which by conventional methods require up to 24 hours.



About five cubic inches of the material to be tested are placed in the cup ring at the top of the instrument. After hydraulic pressure has been applied to expel air from the sample, a switch lever is turned and this connects with the electrical system and the indication of moisture is instantaneous. The same lever is then thrown upward, releasing hydraulic pressure and returning the plunger to the open. The register is powered by batteries which the company claims will give at least one year of ordinary service.

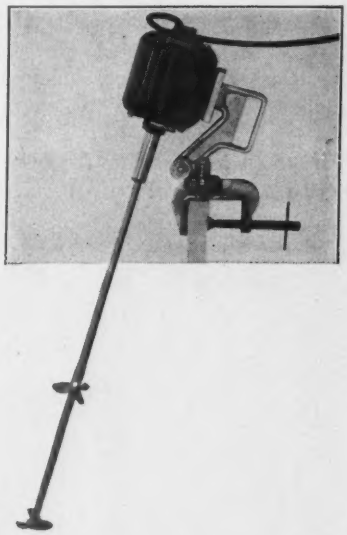
Readings are independent of room temperature, humidity, or temperature of the sample in normal ranges. The register comes with meter dial reading in direct moisture percentages or with arbitrary numerical scale from which the user determines calibrations. The machine is completely housed and portable.

AIR FLOAT MIXER

Process machinery manufacturers who read this will be interested in a new invention for mixing dry materials which utilizes currents of air instead of mechanical mixing elements. The device is intended primarily as a continuous mixer and is designed so that in advance dry materials can be proportioned and sent into it in a continuous stream. It is not a pulverizer. If any of you are interested, I suggest that you get into touch with Mr. Samu-el Ish-Shalom, 415 Ocean Pky., Brooklyn.

ERTEL NEW TYPE MIXER

The "New" Ertel Swivel Type Mixer is constructed so that the shaft can be adjusted separately and the motor separately to any angle. This is an improvement over the other known mixers because the mixer motor

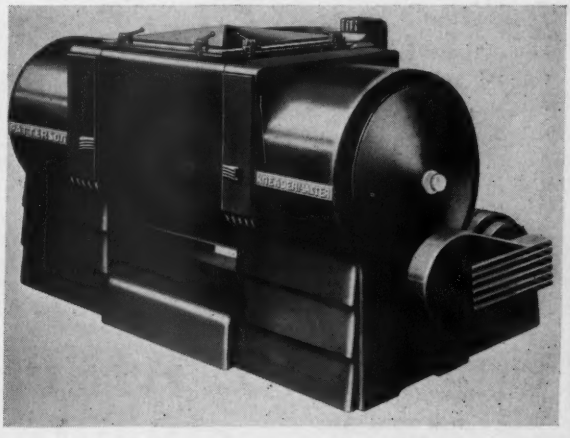


can be adjusted to the proper angle while the motor is running without the danger of the motor slipping and allowing the propeller shaft to hit up against the side of the tank on to which the mixer is clamped, thereby damaging the tank or mixer shaft, or both.

Patents have been applied for the new features of this unit.

MIXING AND KNEADING MACHINERY

The recent introduction of a new line of Kneadermaster mixing, kneading, and processing machinery has been made by Patterson Foundry and Machine Co., East Liverpool, O. It is claimed that the Kneadermaster performs many difficult process operations with ease and economy, and it is particularly useful for mix-



ing and treating heavy plastics and tenacious materials of every description. Kneadermaster mixers are offered

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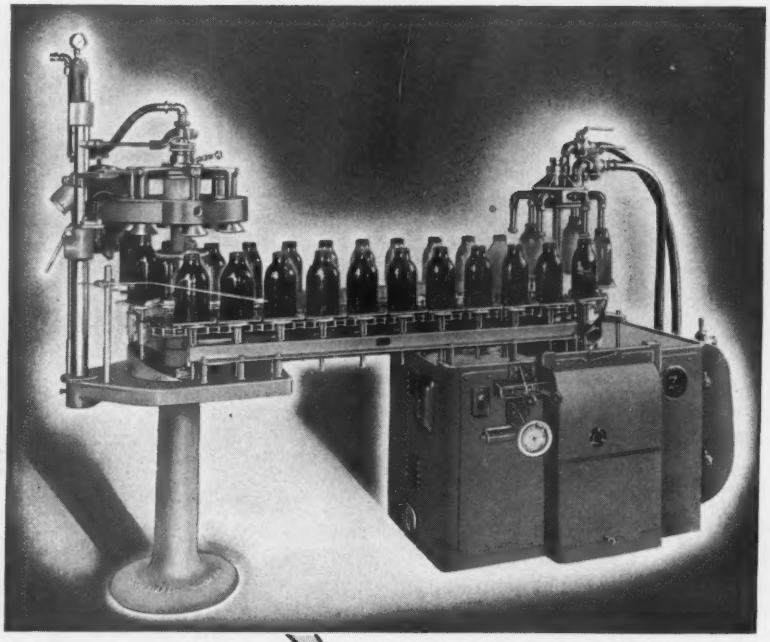

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Before neatly filling containers it first thoroughly cleans them with filtered, compressed air. This machine is built for work!

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in almost any desired batch capacity up to 1,500 gallons, in 60 different combinations of frames, sizes, and horsepowers, and experimental units are available from 1/3 gallon size and in a variety of types and strength for widest possible utility on medium and heavy duty operations.

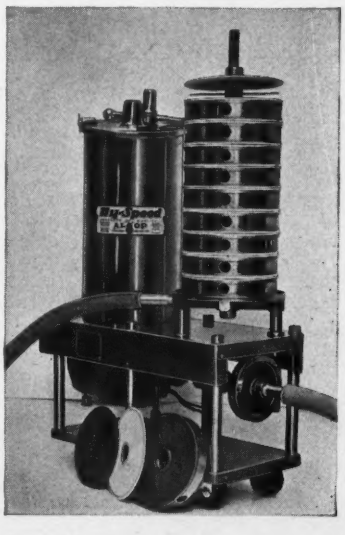
VIBRATING PACKER

Ajax Flexible Coupling Co., 1 English St., Westfield, N. Y., have a vibrating packer which compacts loose materials in containers. A shaking mechanism is attached to the under side of a platform mounted on coil

springs and the vibrating movement acts to pack down loose material in the container resting on the platform. Capacities as to weight of material that can be handled are 75 and 500 pounds.

NEW FILTER

Your attention is called to the new portable filter developed by Alsop Eng. Co., Milldale, Conn., and exhibited in the adjacent cut which shows the mounting of the filter leaves with the tank open. The unit consists of a vertical tank in which a number of filter leaves are suspended. The tank is mounted on a small portable



truck and the pump is mounted on the truck, forming a complete filtering unit. The advantage claimed for this filter is, in the first place, that it is very inexpensive, and is so designed to provide an extremely large filter area. Since the cover of the filter tank can be removed very quickly, the job of cleaning the filter and changing the leaves is reduced to a minimum.

UNIT AIR CONDITIONER

York Ice Machinery Co., York, Pa., announces the Yorkaire 225 which brings air conditioning within the reach of all small departments and offices. This is a small cabinet with a complete air conditioning system

engineered to take up the smallest possible space. The air conditioning is controlled by two simple dials and an adjustable air outlet grille on top. It can be easily equipped for heating and duct-work when needed, and it is easily disconnected and reinstalled.

RUST PROOFING

Claronex Products, Inc., 237 India St., Brooklyn, have developed a rust inhibitor which it is claimed will prevent rust and which will also prevent further rusting on a surface that is already rusting. This material called Rustchrome is a solution of chromium chromate in an oil vehicle. It is not a paint or a rust remover. It is claimed that the material penetrates the rust film and precipitates through the catalytic action of oxygen and moisture a film of metallic chromium on the basic material. It is recommended especially for out of doors piping and tanks.

The same company also makes a product called Phenolex which is a very bright aluminum coating recommended for machinery and also for wood, metal, concrete and brick surfaces.

VARIABLE SPEED PULLEY

Speedmaster is the name given to a variable speed pulley made by the Speedmaster Co., Desplaines, Ill. This pulley provides a six to one ratio! It is operated by means of standard V belts and it can easily be mounted between the motor and the driving pulley of any type of equipment. It is small, compact, and inexpensive.

Lectrodryer air aids in pharmaceutical process

LECTRODRYER SOLVES SUMMER HUMIDITY PROBLEMS

This Lectrodryer supplies air to the room pictured above

LECTRODRYER dries air thoroughly or partially, as desired, for processing of products, for maintaining lower than normal relative humidities in rooms, or wherever a flow of dried air is desired. LECTRODRYER uses the "Activated Alumina System" of dehumidification, and provides thorough, dependable, and economical service for years without a noticeable deterioration or loss of efficiency and with little or no maintenance cost.

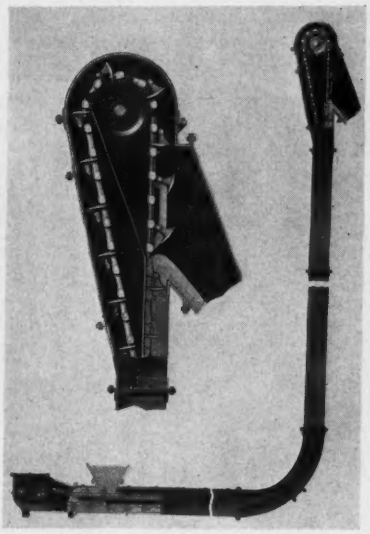
LECTRODRYER is sturdily constructed, well engineered, and simple to operate. Low relative humidities are readily maintained. Tell LECTRODRYER engineers your dehumidifying problem. They will be glad to work with you.

PITTSBURGH LECTRODRYER CORPORATION

FOOT OF 32ND ST. PITTSBURGH, PA.

POWDER CONVEYOR

The Jeffrey Mfg. Co., Columbus, O., have developed a mass flow conveyor unit for handling powders and granular material. In construction the device is very much like the Redler conveyor previously described. The conveying elements consist of a fan fitted with tilting flights or fins and operated within a dust casing.



The unit can be mounted in almost any fashion. It will work vertically, horizontally, or diagonally. It is particularly useful for conveying material in connection with which no cleaning problem is involved. It is hardly suitable for colored materials such as face powder because of the difficulty of cleaning the fan and the flights. It is claimed that because of the tilting flights this conveyor will discharge itself as completely as a bucket elevator. All sizes are available.

CONTINUOUS EXTRACTOR

Speaking of mass flow conveyors reminds us to tell you that the Redler conveyor with open links has been used as a continuous extractor for extracting cocoa butter from cocoa nibs with solvents. Material is fed into the conveyor at floor level and as it travels upward it meets a down flowing stream of menstruum which is drawn off at the bottom. Consequently the marc becomes more and more exhausted as it reaches the top. By increasing the height of the conveyor for a reasonable distance above the point at which the menstruum is fed in, the exhausted marc will drain itself. It is obvious, of course, that by providing heating units along the upper section of the channel and a means for removing and condensing the vapors, such a unit could be made to do the entire extraction and solvent recovery job.

It appears from experience with oil bearing materials such as seeds of various kinds and cocoa that this idea might be applied to the extraction of cascara bark. The marc of course can be made to travel upward at any desired rate of speed to allow sufficient time for swelling and dissolving the active constituents of the drug, and the menstruum can be drawn off at any desired rate. In the case of cascara, the bark is handled in large tonnages and is easily extracted which indicates that a continuous conveyor might be applied to this process. There is one point, however, which would have to be investigated pretty carefully; namely, the drag of the marc against the conveyor channels. In the case of oil bearing materials, the extracted oils or fats have a tendency to lubricate the channel of the conveyor. Since conveyors of this type do not readily handle damp material, it is possible that the marc might drag sufficiently to render the system inoperative.

We have not yet had a chance to experiment with cascara but mean to do so at the first opportunity. We are dubious about botanical drugs which are extracted by solvents of various kinds because as a rule they are handled in relatively small lots and vary so much in their solubility rates that continuous extraction would be of no advantage and might even be a detriment because the active constituents in such drugs sometimes are present in such a small percentage by weight. This is not the case in dealing with oil bearing materials because complete extraction is not necessary, neither is it necessary in connection with cascara bark. If any of you get a chance to try a Redler conveyor as a continuous extractor, we would be pleased to learn about your results and also to publish our own when the time comes.

CONTINUOUS DRYING

I believe the time is coming when truck dryers for drying tablet granulations and similar material will be as obsolete as the dodo. One of the reasons why continuous drying has made so little headway is due to the fact that batches handled in the trade are so small that the problem involved in cleaning continuous drying equipment is too great. Under appropriate conditions tablet granulations will dry very rapidly provided they are kept in a layer about as thick as the granulation itself. In operating truck dryers it is necessary to pile granulations one or two inches deep on the trays and the thickness of the material prolongs the drying period. I believe that a continuous dryer need not be a very long or large apparatus so long as it makes provision for keeping the granulations moving in layers not much over 1/16″ deep.

The Jeffrey Traylor vibrators exhibited at the Chemical Show could be used for larger batches by providing the necessary hoods, air fans, and heating elements. This vibrator consists of a shallow metal tray about 3′ wide and 10′ long. Similar units are made with a series of multiple trays so that the material will travel back and forth, thus shortening the overall length of the unit. Vibrators can be obtained in any width or length and in a variety of shapes. The advantage of a vibrator consists in the fact that it will, depending upon the frequency at which it operates, spread the material in a very thin layer and will cause it to travel at any predetermined speed. The trays of a vibrator drying unit can

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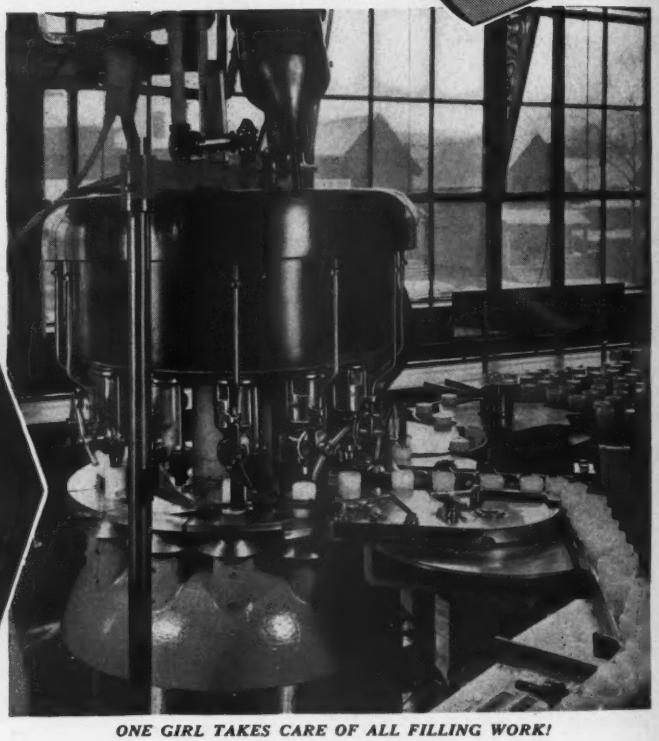

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be cleaned in a few minutes by flushing the trays out or wiping them off. The present disadvantage of vibrating units, excepting for large scale production, lies in their cost.

However, it is possible to design a continuous dryer equipped with traveling belts which will serve the same purpose and which can be cleaned continuously at one point located after the discharge chute. There has been in recent years an enormous improvement in belting. It is now possible to obtain plain or stainless steel belting in a great variety of surfaces. It is also possible to obtain many other types of belt which would have smooth surfaces and which would withstand the heat customarily employed in drying operations. We have been hoping that the necessity for drying tablet granulations might be eliminated through the improvement of slugging or pelleting equipment which would enable us to make tablet granulations by an entirely dry process. However, the appearance of such equipment seems a long way in the future and the present pelleting and slugging equipment does not have universal application and in some instances is difficult to clean.

TANK GAUGE

The Guardian Electric Co., 1623 W. Walnut St., Chicago, have developed a gauge which has been widely employed in the oil industry for remote gauging of storage tanks. Since this gauge might have an application in gauging outdoor tanks used for alcohol and other solvents, it might pay you to investigate it. The unit is comparatively expensive and I don't know whether the company makes small gauges for inside tanks. The feature of the gauge which struck us as unusual is that tanks can be accurately gauged regardless of changes in specific gravity due to variations in temperature or pressure. This gauge has been used not only for fuel oils but for gas and other volatile solvents made by the oil industry, and the Guardian Company makes a striking point in the statement that a tank located in Dallas, Texas, could be accurately gauged in a New York office. The device is electrically controlled but power is required only when it is necessary to take a reading.

MOTOR SIZES

Some manufacturers have rather curious notions about economy. Their ideas seem to be limited to cash outlays and not to operating expense which usually is concealed in general overhead accounts. I was much amused the other day when I observed a centrifuge requiring about 10 H.P. being driven by a 25 H.P. motor. Inquiry revealed that the manufacturer needing the centrifuge and not having a motor for it excepting the 25 H.P. job which had not been used in several years, conceived that it would be economical to use what he had rather than to buy a motor of the proper size. He discounted of course the cost of power, the cost of the motor foundation, and the cost of the large belt. It is a common experience to see equipment driven by motors that are either several times too large for the job or else slightly underpowered. It is difficult for a technically trained expense minded man to understand this condition but it obtains pretty generally throughout the industry. It is so difficult to convince some manufacturers that the way to save money is to spend it for equipment and motors that are properly designed to do particular jobs.

EDUCTORS

It is difficult to clean some types of equipment such as coating pans which cannot be fitted with drains and cannot be tilted sufficiently so that water can be dumped out of them. Instead of cleaning such equipment in the usual way, it is desirable to suck the water out of them with ejectors or educators as they are sometimes called. Educators can be operated with water, steam, or air, depending upon which is available at the lowest cost. Drainage and seepage water in cellars and pipe tunnels can be eliminated through the use of an educator and in such service it is possible to obtain float control eductors which are entirely automatic in operation. Schutte Koerting, Philadelphia, make these devices in a variety of sizes from ½" up.

ADHESIVE

B. F. Goodrich Co., Akron, have developed an interesting type of adhesive which should be useful in maintenance work. This translucent liquid will unite rubber and metal with a bonding strength ranging to 500 pounds per square inch. It is claimed that the material will bond synthetic resins, woods, ceramics, and many other types of materials. It is further claimed that it will resist cracking due to bending, shock, or variations in temperature and that it has a chemical resistance superior to rubber. It will not absorb moisture or swell in water. It is, however, inflammable, explosive, and dangerous to breathe so that it must be handled with a great deal of care.

DRUM AND BARREL HANDLING

The next time you are reorganizing your chemical stock room, you might have a look at the "Magic" drum and barrel handler made by Charles K. Ernst, Inc., 999 E. Ferry St., Buffalo. This device might well be used instead of mounting drums and barrels on dollies and it is obviously more convenient than the ordinary type of drum or barrel handler which requires a great deal of maneuvering. This apparatus consists of a three wheel cradle which fits around the bottom of the barrels and a vertical jack operated by means of a handle. In between the wheels there is a lifting wedge which can be forced under a barrel or drum by pushing against the wheel assembly with the foot. When the cradle is in position, the top grip is dropped over the barrel rim and the jack is operated by pushing the handle downward. This raises the barrel about six or eight inches. The center wheel consists of a swivel caster so that the unit is very easy to handle in cramped aisles. This is a very handy gadget and you can get one on two weeks' trial.

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1—Gum Tape Machine, made by L. Link & Company.
1—National Midget Labeler, motor, press type with slope.
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1—Scientific Vacuum Filling Machine with AC motor.
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11—25 gallon Crocks, covers, and bottom outlet.
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1—Portable Agitator, 1/4HP, AC, 1725RPM, no name.
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HAND CREAMS

The market for hand preparations is not confined to persons whose work necessitates the constant immersion of their hands in water, for they can also be used in the treatment of chapped knees in children, and of chapped and roughened hands in workers in sedentary occupations.

In general, such preparations are either plain oils, or milks or creams, and can be further sub-divided into two further classes depending upon whether they are greasy (i.e., W/O emulsions) or non-greasy (O/W emulsions).

Greasy applications are probably the most efficacious, except in chronic cases involving bacterial infection, in which case the application of grease would interfere with the use of antiseptics. Greasy preparations can also be recommended as "curative" in those conditions in which the skin is becoming reddened and dry, and are also more "protective" in character. Their very greasiness, however, makes washing after application necessary before ordinary duties can be carried out, unless they are applied overnight, the hands being afterwards encased in thin cotton gloves. This latter method of application, incidentally, is the most efficacious.

Examples of such greasy types almost invariably include lanolin or one of its derivatives, except in those cases in which a "straight" oil preparation is employed:

A mineral oil may be used, if desired, when no antioxidant is necessary. Cod liver oil is very efficacious, containing as it does vitamins A and D, sterols, and unsaturated fatty acids. Whilst the vitamins can be added to a simple oil preparation in the form of concentrates, and whilst they undoubtedly play a large factor in the promotion of normal skin, it is by no means certain that *all* of the beneficial effects of fish oils are due only to their vitamin content and it appears preferable where possible to utilize the natural product.

Lanolin has for a long time retained its value in the treatment of chapped skin surfaces and in the prevention of occupational dermatitis. Certain defects are inherent in its use, however, since such products usually have a distinct and somewhat unpleasant odor, are sticky in use and also undergo discoloration by oxidation. The modern trend has been towards the use of lanolin extracts (cholesterol, oxycholesterol). Pure sterols are not used as they are more expensive and possess emulsifying power inferior to that of the cruder product.

Anhydrous lanolin	35
Petroleum jelly	50
Water	15

Mix the water and lanolin, adding the former to the latter a little at a time in the cold. When all the water has been incorporated, mill with the petroleum jelly.

	Parts
Cetyl alcohol	6
Oxycholesterol 95%	3
Beeswax	5
Cocoa butter (deodorized)	5
Avocado oil	10
Grapeseed oil	15
Petroleum jelly	26
Water	30

General method for the manufacture of such preparations is to melt all the ingredients at the lowest possible temperature. Mix well, cool the greasy mass to room temperatures. This "stock" then simply requires milling with the water. This latter operation should be carried out in the cold, and homogenization of such W/O creams should be avoided or complete separation may result under the influence of pressure.

Cold cream bases are also a popular semi-greasy form of such products, e.g.:

Mineral oil	100
Beeswax	38
Cetyl alcohol	1.5
Water	40
Borax	1.6

Avocado pear oil is claimed to possess very high skin-penetrating powers, ranking next only to lanolin. It is claimed that in addition to its vitamin content, phytosterol, and lecithin, it possesses the power of reducing surface tension with consequent production of a finer emulsion.

Less sticky preparations which may be applied and then simply wiped with a cloth, are obtained by the use of O/W emulsions, e.g.:

	Parts
Cetyl alcohol	16
Cocoa butter	4
Grapeseed oil	5
Sodium lauryl sulfate	1.2
Water	65

Melt the cetyl alcohol, cocoa butter, and oils with the sulfated alcohol, stir well, and cool to 70° C., add to the amount of water at the same temperature and stir until cold.

Propylene glycol stearate	10
Avocado pear oil	5
Grapeseed oil	5
Water	50

A cream with greater "protective" value than many of the O/W products is prepared by the use of talc with an increased amount of fatty oils and/or waxes, e.g.:

Glycol distearate	12
Cetyl alcohol	8
Petroleum jelly	10
Liquid paraffin	10
Water	60
Talc	10

The melted oils and fats with the diglycol stearate are added to the water at 70° C., and the cold, emulsified product milled with the talc. A preservative is necessary in all O/W emulsions.

Liquid creams and lotions have always been firm favorites with women, as is testified by the innumerable "honey and almond," "honey and cucumber," "glycerin and cucumber" creams. Such products may be prepared in a more modern manner by the use of newer emulsifying agents,

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additions of glycerin, almond oil, honey, cucumber, etc., being made to the formula in question. In the case of the last named, 1 per cent. cucumber juice may be added for a "genuine" article, but usually such creams are characterized by its absence.

The use of triethanolamine stearate in beauty milks is now a standard practice.

I

Cetyl alcohol	0.25
Avocado pear oil	2.50
Oxycholesterol	0.30
Stearic acid	1.50
Triethanolamine	0.50
Water	78.00
Glycerin	6.00
Alcohol	6.00

II

Cetyl alcohol	1.0
Lanolin	5.0
Avocado pear oil	2.0
Stearic acid	2.5
Triethanolamine	0.9
Water	175.0
Glycerin	10.0
Preservative	q.s.

In both these formulas the oils, fats, and waxes are heated to 70° C. The triethanolamine, glycerin, and water (together with preservative) are heated to the same temperature and the former added to the latter with constant agitation. The alcohol, in the case of the first preparation, is added to the cold emulsified product. It appears to render the preparation less greasy in use, but if desired may be replaced by an equal amount of water. The first formula produces an excellent product; the second is a little "tacky," owing to its lanolin content.

A hand cream of the borax-beeswax O/W type, of the approximate consistency of thick, raw cream is obtained by the following:

	Parts
Beeswax	10.00
Cholesterol	0.50
Avocado pear oil	5.00
Olive oil	10.00
Grapeseed oil	25.00
Cetyl alcohol	5.00
Mineral oil	40.00
Water	165.00
Borax	0.80
Preservative	q.s.

Fish oils appear to be of value in the treatment of chapped and roughened hands and since this has not yet been proved to be due only to their vitamin content, it appears better to use the actual oil. Perfuming of such a preparation is admittedly difficult; probably an oil-soluble rose perfume is as good as anything.

Hand creams may also be made by the use of the sulfonated alcohols, etc., e.g.:

	Parts
Cetyl alcohol	5
Lanolin	1
Liquid paraffin	3
Sulfonated oleyl alcohol	0.8
Water	155
Lactic acid	0.5

In this preparation the first two constituents tend to produce a water-in-oil emulsion, whilst the sulfonated oleyl alcohol favors the reverse. For this reason the final product should be homogenized. This product is "soapy" to apply, but forms a useful basis for an O/W cleanser for hands which should possess in some measure the psychological "soapy" characteristic. *R. G. Harry, Manuf. Perf.*

SKIN TREATMENTS

A powder is often considered as a very simple product that is quite useful for the care of the skin but devoid of sufficient properties that merit its consideration as a skin therapeutic. This slight regard of the medicinal qualifications of a dusting powder can be explained by the primitive nature of the most widely used products, which are little more than powdered talc. Some progress has been made by the addition of zinc oxide, boric and salicylic acid, etc., but the simple methods employed in manufacture have proved inadequate for obtaining preparations that fully meet the requirements of dermatological practice.

The improvement of medicated powders is mainly the problem of providing a powder-base that combines the following properties:—

Lubricant Effect is required for the prevention of friction. It must not be affected by marked perspiration and the application must not become gritty or cake in use because thereby it would become a new source of irritation.

High Absorbent Capacity is necessary for the rapid removal of moisture from the surface of the skin because the secretions assume by decomposition irritant properties.

Marked Adhesive Power is important to avoid the waste commonly associated with the use of talc. A powder application can only act if it clings to the affected parts.

Cooling Effect requires a large artificial surface for the rapid evaporation of the absorbed moisture. For this purpose the powder constituents must be reduced to extremely small dimensions that provide a very large active surface.

The production of powder-bases embodying these requirements has become possible by the blending of suitable constituents and the use of effective mechanical processes for their sub-division to exceedingly small particles.

The next step was the elaboration of methods that ensure the uniform dispersion of antiseptic, soothing and healing agents such as boric acid, salicylic acid, sulphur, ichthyol, etc., in the base. For the prevention of agglomeration and subsequent loss of surface the use of highly voluminous powders as dispersing agents for the added medicaments leads to most satisfactory results.

A very practical method for obtaining an even distribution of powder particles on large skin surfaces is the application of a suspension of powders in a fluid medium that evaporates. Such a lotion can be conveniently applied to the skin with a soft, flat brush or if very dilute in the manner of a wet dressing. This type of application has become widely popular as Calamine Lotion, which is often no more than a mixture of colored zinc oxide with glycerine and water.

In recent years the improvement of the simple calamine lotion by the production of more concentrated preparations that consist approximately of equal parts of solids and fluids has received much attention in dermatological practice. A liquid powder with the consistency of a thin paste that incorporates the powder particles in a state with high absorbent power, dries rapidly and provides a protective permeable coating with excellent adhesive properties.

The manufacture of such improved lotions requires a special equipment and must be carried out in bulk. To obtain satisfactory results much experience in the blending of suitable ingredients such as colloidal kaolin and silicic acid preparations, diatomite, talc, etc., is necessary but products are obtainable of uniform texture and with superior properties to hand-made lotions. Such concentrated lotions are most useful protective applications for parts that are difficult to bandage and also excellent dessicating bases for added medicaments. They can be diluted with water as required.

Ointments are skin applications with the suitable consistency for inunction that consist of a basic ointment and added medicaments for which the usually fatty base acts as a vehicle and medium. A cream is an ointment with a base that by reason of its chemical composition is capable of absorbing water. A paste is a mixture of a basic ointment with insoluble and chemically inert powders that can be reinforced with medicaments.

The most important part of every type of ointment is the base because it determines the mode of action obtainable from the application.

Choice and dosage of the drugs is comparatively simple, their pharmacological properties are well known. An effective medication is mainly the problem of prescribing a base in accordance with biological conditions.

As no single available substance or product embodies all the necessary chemical and physical properties requisite for a satisfactory ointment base, it only remains to build up an artificial basic ointment from suitable constituents. *C. R. Theiler, Chem. Prod.*

Perfumers Shelf

NEW VIOLET CONSTITUENTS

The discovery of ionone was the first step in the production of synthetic violet; great improvement was made by the development of alpha and beta ionones; the discovery of methylionone was still another improvement leading to a better odor. Now these chemicals are all part of every perfumer's tools in his constant endeavor to please the consumer, with methylionone playing an especially important part. Still, the problem has not been fully solved. With these three ionones as the basis, good violet extracts are made, yet these extracts must not be examined too closely. The softness and sweetness of the original is still elusive.

Many additions to the mixture have been made in an attempt to lessen, to some extent, the "synthetic" quality of the odor. Violet leaf oil, a natural oil obtained by extraction, has had successful application. Similar products, but with notes that are less fine, are methyl heptin carbonate and methyl octin carbonate, as well as lauryl alcohol. Although the effect of these products in improving the compound is noteworthy, they still are not sufficient.

Until recently, little was known about the composition of violet leaf oil, so that it was naturally enormously difficult to compound a synthetic mixture with its special properties. Quite recently, however, this oil has has been separated into its most important components, which are chiefly alcohols, with a certain proportion of parmone, an isomer of ionone. Parmone has a finer and more flowery note than alpha ionone. The most important of the alcohols is nonadienol. It is present in large quantities in the natural oil and has a characteristic green odor, reminiscent of fresh cucumbers.

Takej and his coworkers have investigated nonadienol and nonadienal. They also found that the widely distributed hexenol, named "leaf alcohol" is the carrier of the green odor of grass, leaves, etc. The synthetic hexenol of the same apparent structure does not have a green odor and it is assumed to be a space isomer of the natural product, the natural alcohol being of the trans form, while the synthetic is cis. Oxidation with chromic acid gives the "leaf aldehyde."

Since hexenol is used in the synthesis of nonadienol, the quality of the latter naturally depends upon the type of starting material used. Takej, using the natural leaf alcohol, obtained 2-trans-6-trans-nonadienal-1, while Ruzicka and Schinz used the synthetic cis-hexen-3-ol-1 to get 2-trans-6-cis-nonadienal-1.

The nonadienol is sold as violet alcohol and is a stable, powerful aromatic. The odor when concentrated is somewhat sharp, but on dilution is fresh, flowery, and green. On very great dilution, the cucumber-like odor becomes quite similar to that of violet. Up to 3 per cent. of the alcohol may be used in compounding a violet oil. It is used in place of lauryl aldehyde and methyl heptin carbonate. The alcohol is also especially suitable for the production of a flowery note in numerous floral and fantasy compositions.

Compositions containing the violet alcohol are freshened, fuller and more natural. Since the alcohol is quite powerful, it is best used in a 10 per cent. solution. The odor is long lasting and the stability of the aromatic is such that it may be used in cosmetic preparations, especially those based on cucumber.

The violet aldehyde (nonadienal) has a stronger odor than the alcohol. It is used only in alcoholic or diethyl phthalate solution and, when diluted, its odor is reminiscent of fresh cucumbers. It should not exceed 2 per cent. of the total in a mixture.

MANUFACTURING FACE POWDER

The process of face powder manufacture is merely the mechanical mixing of the ingredients, the perfume and the color. The only difficulty is the dispersion of the perfume and color evenly throughout the bulk of the mix, and the various methods of manufacture advocated differ mainly in the means whereby this result is achieved.

The most primitive way—and after a little practice it gives quite satisfactory results— consists in sifting the various ingredients into one another with the exception of the chalk (or preferably the chalk plus a proportion of the magnesium carbonate). The perfume is then poured into the chalk slowly with agitation, followed by the color dissolved in alcohol. Water-soluble colors are not satisfactory as they produce pasty aggregations that cannot be sieved. The chalk should then be rubbed through a sieve of about 30 mesh, and then through an 80 or a 100 mesh. The preliminary sieving breaks up the larger masses of wet chalk and facilitates passage through the finer mesh. The colored and perfumed chalk is then added to the bulk of the powder, and the whole is well mixed and finally bolted through a mesh of at least 160, using a stiff bristle brush.

If a sifting and mixing machine is available, quite large batches can be handled easily in this way, adding the roughly sieved chalk to the hopper of the sifter in small portions alternated with portions of the uncolored powder. This latter precaution prevents clogging of the revolving brush or the sieve. After the chalk has gone through, it will usually be found quicker to run out the powder and pass the whole once more through the sieve chamber than to continue running the mixer until the color is evenly distributed.

The powder dressing machine is an adaptation of the ordinary sifter and mixer, and consists of the usual sieve chamber with revolving brush and mixing chamber with beater arms, together with an atomizer device which injects the dis-

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solved color and perfume into the mixing chamber *above* the normal working level. The spray thus meets the falling powder as it passes through the sieve, and the result is a much more even coloration than can be produced by hand mixing. It is merely necessary to add the raw materials —in any order—to the sieve chamber hopper, and to start the atomizer after a proportion of the powder has gone through.

It is usually advisable to add opacifying agents such as titanium oxide between the additions of ingredients present in larger proportion. Part of the talc can be put through last, as it effects an adequate "rinsing" of the sieve and brush. It is not necessary with this apparatus to repass through the sieve. The final tint of the powder thus made depends largely on the volume of solvent used for the color.

Pigments or insoluble lakes can satisfactorily be incorporated by hand, but must be milled or ground with a spreader such as chalk. Hand mixing, even followed by several passages through a 200 mesh sieve, gives a product the color of which will deepen perceptibly on being rubbed out on a hard paper surface.

If a large enough mill is available it is merely necessary to add the pigments and the other ingredients together, and mill until uniformity is obtained. A pebble or ball mill is excellent, although the finished batch should be sifted carefully to remove any large particles or impurities which may have been in the raw materials. A turbine sifter is ideal for this job. Although it is commonly stated that the perfume may be added also with the other ingredients, it will be found quicker and more satisfactory to rub it with chalk and pass through a coarse sieve before addition. Batch uniformity will only be achieved by a constant milling period. Insufficient milling is, of course, indicated by streaks on rubbing out a small sample of the powder.

Quite satisfactory results can be obtained without a large mill by milling the pigment with a chalk extender, as suggested, to form a color base; which can then be mixed with the powder in a sifter and mixer; the perfume is added via chalk or magnesium carbonate as before. In this case again it is advisable to pass the finished batch a second time through the sieve.

When more than one pigment is used it will be found that the actual color may change as well as deep enduring grinding, the mixing color tending towards that of the pigment originally of the coarsest grain or most friable texture, which naturally becomes broken down and distributed to a greater extent than the other. If soluble colors are not being used, the perfume itself should be diluted with alcohol, as this facilitates distribution, accelerates ripening of the perfume on storage and livens up the odor generally. *J. Glenn, S.P.C.*

WATER-IN-OIL CREAMS

It is well known that anhydrous lanolin is able to absorb fairly large proportions of water, and that this fat is useful in the preparation of various cosmetic and pharmaceutical creams. These are valuable when a good emollient effect is desired, and they possess good stability towards both mild acids and milk alkalis, so enabling various medicaments to be incorporated irrespective of their pH, a procedure which, of course, is not possible with cold creams made by the aid of borax. Conflicting results have been obtained by different workers for the maximum proportion of water which it is safe to incorporate. This is not difficult to understand when it is borne in mind that lanolin is a natural product, subject within a narrow range to variation in constitution. Moreover, different results may arise through different methods of working, as breakage of water-in-oil emulsions is greatly facilitated by the presence of air-bubbles. Indeed, in almost all semi-solid emulsions of the type in question, the best results are obtained by kneading *in vacuo*.

It is also remarkable that a mixture of anhydrous lanolin and petrolatum is able to absorb more water than is lanolin itself. An old formula requires the use of equal parts of lanolin, petrolatum and water; but some workers experience great difficulty in preparing this cream, and find it necessary to reduce the water-content. Preparation of the cream is greatly facilitated by using 1 to 2 per cent. of cetyl alcohol, or, better, stearyl alcohol. Both are valuable materials for the production of water-in-oil emulsions; and, if larger proportions are employed, plus a suitable oil or mixture of oils, cosmetic creams of the water-in-oil type can be prepared without the aid of lanolin. However, for facilitating production of a lanolin-petrolatum cream, the following formula is recommended:—

Lanolin, anhydrous	33
Petrolatum	33
Distilled water	33
Stearyl alcohol	1

Even with this addition, however, for first-class results it is desirable to knead the cream *in vacuo*.

The constitution of lanolin is rather doubtful, analytical examinations not always giving concordant results. However, one of its identified constituents to which its water-absorbing powers are due is undoubtedly free cholesterol, though this substance appears not to be the only or the most powerful constituent from the point of view of water-absorption. For many years there have been available various so-called "absorption bases" founded on mixtures of hydrocarbon waxes containing small percentages of cholesterol or, better, oxycholesterol. The latter substance has been found to possess superior water-absorbing powers to those of cholesterol. Some of these absorption bases will absorb as much as three times their weight of water. Creams containing large proportions of water loosely absorbed by a lipoid mixture are unpleasant in use and generally it is not desirable to exceed, or greatly to exceed, 30 per cent. of water. In general the incorporation of a small proportion (about 3 per cent.) of lanolin is advantageous, an indication of the presence in lanolin of a substance possessing water-absorbing powers in a much higher degree than either cholesterol or oxycholesterol.

Oxycholesterol and cetyl alcohol or stearyl alcohol may be used in conjunction; and by this means the production of excellent creams of the water-in-oil type is facilitated. For example, the following formula is a basis of fatty night creams of the type usually marketed as "skin foods":

Oxycholesterol	0.5
Lecithin, bleached	0.5
Stearyl alcohol	5.0
Anhydrous lanolin	6.0
Lard	16.0
Almond oil	16.0
Petrolatum	26.0
Water, distilled	30.0

This cream can easily be prepared by mixing the whole of the lipoids together, warming sufficiently to melt, and working in the water just as the mass commences to solidify. The addition of suitable preservatives against mold-growth and rancidity are essential. Cetyl alcohol may be used in place of stearyl alcohol in making this cream, or a proprietary mixture of the two may be employed.

Distilled extract of witch hazel is a common constituent of lanolin and allied creams, and generally does not appear to exercise an adverse effect on stability. Rose-water sometimes affects stability, a phenomenon which needs investigation. *H. S. Redgrove, Pharm. J.*

ACID EMULSIFIER

The Kessler Chemical Corporation, Philadelphia has developed a new emulsifier which is marketed under the name of Kesscowax AC.

This emulsifier, which is a wax-like product, has been especially developed for the preparation of greaseless creams having an acid reaction.

OLEYL ALCOHOL

A new purified type of technical oleyl alcohol, "Ocenol" KD, which is water white and has a bland odor, is announced by the Dyestuffs Division of E. I. du Pont de Nemours & Company. Because of its odor and color, this product is suited to the cosmetic trade. "Ocenol" KD markedly reduces the surface tension of oils, and, therefore, promotes the stability of oil and wax emulsions. It also promotes limpid solutions of oil.

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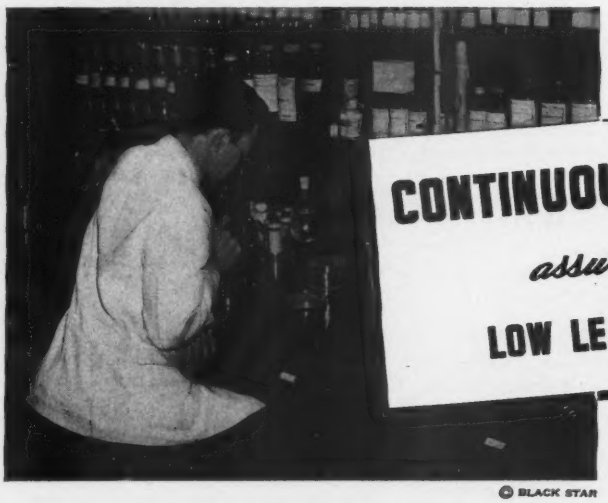

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ADVANCING THERAPY

SULFATHIAZOL

The value of sulphanilamide and of other sulphonamide compounds in the treatment of streptococcal infections has been conclusively established. For some unexplained reason these substances are not so specific when the infection is due to staphylococci and in consequence a search has been made for variations in the molecular constitution of this group of chemicals which yield an antistaphylococcal agent. By linking a thiazole radical to the sulphanilamide radical various workers have reported on a new compound 2- (*p*-aminobenzene sulphonamido) - thiazole or, as it has been termed, "sulphathiazol" which has a marked action *in vitro* as well as *in vivo* against experimental streptococcal, pneumococcal and staphylococcal infections. It melts at 202.0-202.5° (corrected); it is soluble in alcohol at 26° to the extent of 0.525 gm. in 100 mils; in water at the same temperature the solubility is 0.06 gm. in 100 mils giving a *p*H of 6.03.

Other compounds containing the thiazole radical have been made and tested, but perhaps the most promising results have been given by sulphamethylthiazol, 2-(*p*-aminobenzine sulphamido)-4-methylthiazole, where a methyl (CH_3) group has replaced one of the hydrogens in the thiazole ring. This has a melting-point of 237-238°, and against *Staphylococcus aureus* a high bacteriostatic value, much higher than that of sulphanilamide and sulphapyridine. In one reported clinical case doses of 2 gm. in four 7½ grain (0.5 gm.) capsules for two doses at an interval of four hours, followed by 1 gm. every four hours, cleared up a moderately infected post-operative incision which contained *S. aureus* with subsequent development of bacteremia in which the same organism was the causative agent. *Pharm. J.*

VITAMIN B AND BLINDNESS

The discovery of the cause, prevention and cure of a serious and prevalent form of hitherto incurable blindness, affecting thousands of young and old, is announced in the Public Health Reports, published by the United States Public Health Service.

The form of blindness is known as keratitis, a disease in which the cornea of the eye is invaded by a superfluous number of blood vessels, followed by the formation of white opaque spots that blot out vision.

The United States Public Health physicians, in cooperation with physicians of the University of Georgia Medical School and the Milbank Memorial Fund, discovered that this form of blindness was due to the lack in the diet, or the inability to digest, the specific vitamin known as riboflavin, one of the vitamin B group found in liver, milk, eggs, vegetables and yeast.

What is even more important, they discovered that administration of this vitamin would clear up the spots of the cornea and restore vision, while it will also prevent the development of the disease if administered in its early, or incipient, stages. A new method has also been developed, making it possible to determine the existence of the condition just as it is beginning to appear.

In all, eleven patients with keratitis have been treated so far. All had definite symptoms of the disease in its earlier stages, such as itching, burning and a sensation of roughness of the eyes, with mild photophobia (intolerance to light). In five patients corneal opacities were grossly visible. Most of the cases showed impaired visual acuity. All were restored to normal by the administration of riboflavin. When the riboflavin was discontinued the condition returned, the Public Health report declares.

TRIPHENYLCHLOROETHYLENE

Macpherson and Robertson used triphenylchlorethylene because its action is greater and more prolonged than that of triphenylethylene. The forty-one cases treated included amenorrhea, menopausal symptoms, atrophic vulvitis or some similar condition, atrophic rhinitis and cases in which it was desirable to inhibit lactation. Triphenylchlorethylene was prepared for oral use in tablet form, each tablet containing 200 mg.; in ampules containing 250 mg. dissolved in 5 cc. of sesame oil, suitable for injection, and in cocoa butter made up in the form of vaginal suppositories, each containing 100 mg. In each of the four cases of amenorrhea treated there have been periods of withdrawal bleeding between the courses of treatment. The total dosage that has produced this result has been from 12,000 to 16,000 mg. Of the patients with vulvitis and vaginitis, seven had atrophic rather than primarily infective vulvitis and vaginitis. The eighth patient in this group complained of intense itching of the vulva. The drug was given orally in four cases and by injection in four. The amounts used in each course of treatment were not constant throughout this group, but the variations were not wide. The result of the treatment in almost every case was complete relief from symptoms and in seven of eight cases the local condition was obviously improved. The patients with menopausal symptoms all received the drug in tablet form, from 200 to 1,800 mg. being taken daily for, in some cases, several successive courses of from four to five weeks. The effect of the drug was noticed within two days of the start of treatment, and after the average course, which lasted from three to four weeks, the action of the drug was maintained for another two weeks before any recurrence of symptoms

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was noticed. Triphenylchlorethylene was given to twelve patients to inhibit or stop milk secretion, six by mouth and six by injection. Where treatment was begun shortly after delivery, the breasts remained soft and painless in four of six cases. Of the other two patients, one experienced discomfort on the third day and the other secreted a considerable quantity of colostrum for three days but no milk. Of two patients, treated by injection on the first day of the puerperium, the breasts showed no engorgement and remained painless. Where lactation was already established, treatment by tablets or by injection of from 250 to 300 mg. led to cessation of milk secretion after from three to five days, and in no case was there any recurrence. Trichlorethylene has no definite toxic effects and can be administered in large doses or over a long period. The duration of action by mouth closely approximates that of stilbestrol. By injection, however, the duration is singularly prolonged; after 500 mg., by the technic described, effective action persists for from six to nine weeks. By this method, therefore, a very small dosage is sufficient to maintain a continuous high level of estrogen activity. *Lancet, vol. 2, p. 1362.*

GONOCOCCUS VACCINE

Goria used Nicolle and Blaizot's vaccine, which contained between 200,000,000 and 1,500,000,000 gonococci, in seventy-five cases of acute urethritis with or without complications. Of forty-nine cases of acute urethritis without complications the gonococcus disappeared from the urethral secretion before ten days in thirteen, before twenty days in twenty and after twenty days in sixteen. The secretion stopped before one month in twenty-three cases and after a month in twenty-six cases. In six cases each of acute urethritis with orchiepididymitis or cystitis and in three cases of urethritis with cystitis, clinical and bacteriologic recovery was obtained before two months. cn all cases the satisfactory results have lasted from six months to two years after discontinuation of the treatment. Gonococcus vaccines cannot be administered intravenously to ambulatory patients. The patient has to rest in bed for the first few days of administration of the treatment and again on the day on which the vaccine is administered. The contraindications are heart disease, tuberculosis, asthma, cardiorenal diseases and old age. *Revista Med. de Rosario, vol. 29, p. 1198.*

AMMONIUM BICARBONATE FOR WOUND HEALING

In a further analysis of the secretions of surgical maggots, Robinson found that ammonium bicarbonate is present in comparatively large quantities. In solution ammonium bicarbonate has an alkalinity of ph 7.7, corresponding roughly with that of maggot excretions. Wounds treated with maggots tend to have this same alkalinity. Preliminary tests were made with commercial ammonium bicarbonate to determine what effect the pure solution would have when applied to wounds of dogs and rabbits having persistent discharging sores, chiefly on the back and egs. A 2 per cent. solution of ammonium carbonate or bicarbonate in sterile water was made up and applied to the wounds in a series of comparative tests. The wounds were thoroughly moistened several times a day with either of these solutions. The wounds healed with the formation of little scar tissue. In later studies with gauze packs saturated with 1 or 2 per cent. concentrations of either of the two ammonium compounds, healing was promoted in purulent and indolent wounds. In purulent conditions, such as chronic osteomyelitis, diabetic and varicose ulcers, otitis media and infected lacerations, ammonium bicarbonate solution caused an improvement in the wound similar to that produced by maggots. *Amer. J. Surgery, vol. 47, p. 111.*

DESOXYCORTICOSTERONE ACETATE

Eitner tried desoxycorticosterone acetate in 0.5 per cent. oily solution in cases of asthenia with severe emaciation. The patients were given daily one intramuscular injection of 1 cc. of the oily solution, that is, 5 mg. of the drug. The nine cases reviewed were characterized by general debility, weakness and loss of weight. The total quantities of desoxycorticosterone acetate administered in these cases varied between 0.075 and 0.26 Gm. In some cases the treatment was limited to the administration of desoxycorticosterone acetate and the resulting increase in weight was rapid and continuous. In other cases the drug was given after the insulin-dextrose therapy had produced unsatisfactory results and here again the desoxycorticosterone acetate proved effective. The increase in weight that followed treatment with desoxycorticosterone acetate was accompanied by an improvement in the general condition and in the subjective complaints. It is important that the organism receive an adequate supply of foodstuffs but forced feeding is unnecessary. The fact that the administration of the drug succeeded in cases in which the customary methods failed suggests that insufficiency of this substance existed although the characteristic symptoms of Addison's disease were absent. On the other hand, there are cases of emaciation in which desoxycorticosterone acetate fails to act in this manner. The author hopes that further investigations on the resorption of fat and dextrose may perhaps make possible a more exact indication for the use of the preparation than was possible on the basis of merely clinical observations. *Med. Klinik, vol. 35, p. 1544.*

IMPETIGO TREATMENT

Impetigo Contagiosa.—According to Seldowitz, it has been demonstrated by Kahn and Carroll that rubber containing 8-hydroxyquinoline exhibits certain bacteriostatic properties, particularly in reference to the staphylococcus. In view of the bacteriostatic properties of this rubber base combination, it occurred to the author that the material might find therapeutic application in cases of certain types of pyogenic infections, mainly impetigo contagiosa. A study was made of its effect on thirty-eight children suffering from this infection. The lesions were covered with a thin layer of gauze, and the rubber was applied over the gauze. The dressings were held in situ with adhesive plaster and were changed at intervals of from two to four days. The gauze was employed to absorb any secretions which might accumulate beneath the rubber, such as those resulting from liquefaction of the crust or from actual exudation from the lesion itself. The medicated rubber was found to operate as efficiently through the layers of gauze as when placed directly over the lesions. Some of the patients were treated at once with the medicated rubber. For control purposes others were subjected to a preliminary period of treatment with with various agents. Summarizing the results of his treatment, the author says that thirty-five of thirty-eight patients were successfully treated with rubber containing 8-hydroxyquinoline. The average time for the disappearance of the crusts was three days. The skin returned to a normal appearance in an average of eight days. The lesions in three of the thirty-eight cases were refractory to this form of therapy. *Am. J. Dis. Children, vol. 59, p. 67.*

VANADIUM TREATMENT

Pereira first describes his experiences with vanadium sodium tartrate in syphilis. The salt, in the form of an aqueous solution (0.15 Gm. in 2 cc.), is injected intramuscularly twice weekly. The spirochetes, which could always be demonstrated in the exudate of the primary lesion, disappeared within twenty-four to forty-eight hours and cicatrization was completed in from three to six days. The secondary lesions of skin and mucous membranes likewise disappeared rapidly. Even gummas that had been refractory to bismuth compounds, arsenic and several series of arsphenamine were rapidly cured. The toxicity of vanadium tartrate is low, being tolerated even by children of less than a year. Stomatitis, erythema and hepatic disorders have been observed in rare instances. Because frambesia resembles syphilis, it was decided to try vanadium therapy also in frambesia. The results were favorable. *Zeits. Immunitats., vol. 97, p. 77.*

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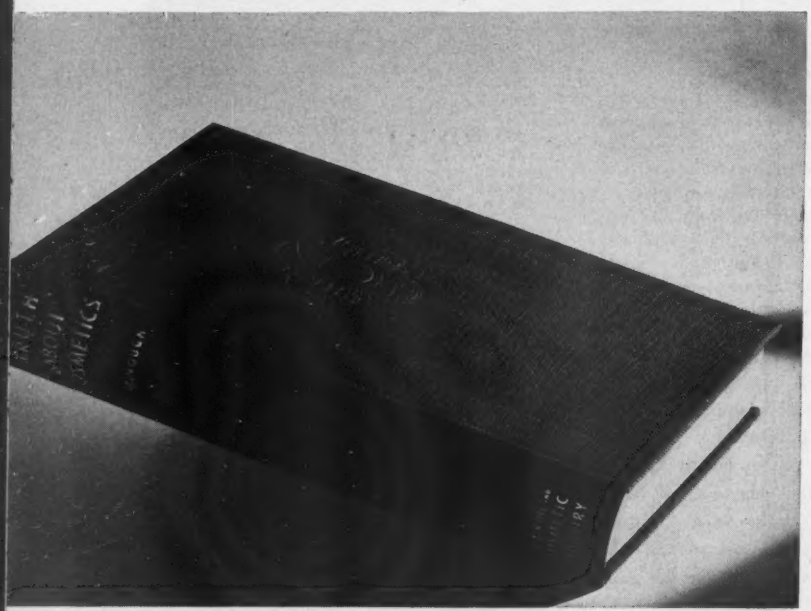

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READERS'

MOUTH WASH: We are preparing a peppermint mouth wash but find that the type required here is one that will make a cloudy solution when a few drops are added to a glass of water. Can you suggest a chemical that will produce this cloudy effect without spoiling the taste in any way, and tell us where it is obtainable?

We wish to produce a Negro hair straightener which is a big seller in this country. Can you suggest a formula for same. South Africa.

The type of mouth wash that you are interested in does not give a milky solution merely because of the addition of a chemical to give this effect, but turns milky when added to water because it is a highly concentrated mixture of aromatic and antiseptic oils. It is advisable to use about ten times the normal concentration of essential oils dissolved in alcohol without the addition of water. When a few drops of this is added to water, the oils form a milky precipitate.

The type of hair straightener you are interested in generally consists of a heavy petrolatum, wax mixture, which is adhesive and thick enough to straighten kinky hair.

TITANIUM DIOXIDE: Do you have any information from the Food and Drug Administration relative to the purity of titanium dioxide used in cosmetics; also whether or not the amount of this ingredient used in a preparation is limited to definite percentages? Denver.

We understand that titanium dioxide used in cosmetics is being limited in the same way as other pigments used in cosmetics, namely, that the proportion of lead and arsenic must be less than twenty parts per million. There is apparently no limit to the amount of this purified material that may be used in cosmetics.

SKIN FRESHENER: Can you advise us how to make a freshener that will only require a single filtration. Our mixture consists of Bay rum, menthol, and rose water. This has to be filtered three or four times, but on standing a while precipitate forms. Indianapolis.

Apparently you are not using enough alcohol to keep your menthol in solution. At least ten to twenty per cent. of this solvent must be present not only as an astringent, but also to keep essential oils and menthol in solution. Before filtration it is advisable to chill the mixture and allow it to stand for several days to permit insoluble materials to come out of the mixture. Stirring talc into the solution also helps to clarify the solution.

COSMETIC COLORS: I need information concerning the colors which may be used in drug and cosmetics. This information should have to do with the chemical composition as well as the physical characteristics of the substances used. Do you know where such information may be had? Do you have any books on the subject, especially on the certified colors? If not can you direct me to what I need? Syracuse.

The information you wish concerning chemical composition and the names of acceptable colors can be obtained by writing to the Food and Drug Administration, Department of Agriculture, Washington, D. C. It may be necessary to supplement this information by referring to standard reference works such as "The Colour Index."

BATH OIL: If you have in your files a formula for a good liquid bath milk, we would very much appreciate your sending it to us. Brooklyn.

It is our understanding that a bath milk is merely another name for a bath oil which forms a milky mixture with the water in the bath tub. A mixture of this type can be made by mixing about thirty per cent. of the essential oil mixture (high terpene content) with about seventy per cent. of sulfonated castor oil. A mixture of this type should precipitate the oil when added to a large excess of water. Another formulation of the same type of mixture consists of ten parts of triethanolamine oleate with forty parts of mineral oil and fifty parts of perfume oil.

CORN REMOVER: We have been marketing a corn remedy and wart remover for some years, but since we were forced to eliminate Tr. Cannibus in the corn remedy we began to have considerable trouble with evaporation, etc. Your suggestions have been helpful before, we are again asking for your very kind advice. Will you kindly send us as soon as possible a practical formula on corn remedy and wart remover, without the use of alcohol. Also your advice on the type of closure to eliminate excessive evaporation. Many thanks for your valued assistance. Philadelphia.

The active ingredient in corn removers is generally a fairly high proportion of salicylic acid dissolved in collodion. On this basis use ten parts of salicylic acid mixed with ninety parts of collodion. About five parts of glacial acetic acid may also be added. Since mixtures of this type should dry rapidly, in order to permit convenient use, low boiling solvents which evaporate quickly are required. Your only solution to the problem of evaporation is the use of a narrow shaped bottle with a relatively small opening and a screw cap closure to minimize evaporation.

QUESTIONS

DENTAL PLATE FIXER: We are interested in obtaining some indication as to how to formulate a dental plate powder that can be used to keep plates in place. Cleveland.

We have not examined the adhesive powders that you are interested in but we believe that they are based on powdered gum karaya. Since we still have our own teeth, we have not been able to make direct experiments in this field. It is our impression, however, that these products consist of a powdered gum such as karaya, with from one to two per cent. of methyl parahydroxy benzoate as a preservative and the desired amount of flavoring oil. Karaya is a generally acceptable gum but if too much allergic reaction to this material is encountered, it may be necessary to experiment with other powdered gum materials.

PERMANENT WAVE: We are interested in a permanent wave solution which will give a good tight curl and yet has enough oil in it to leave the hair soft and lustrous. This solution to be used for machine as well as machineless, particularly for fine, difficult to wave hair. As a subscriber to your magazine, we would greatly appreciate your mailing us some formula for the above mentioned permanent wave solution, (non-ammonia type). We understand that a solution containing potassium sulfite is preferable to one containing sodium sulfite. Enclosed please find a stamped self-addressed envelope for your convenience, and thanking you for your prompt attention. Chicago.

A mixture such as you are interested in should contain about twenty ounces of potassium sulfite, four ounces of ammonium carbonate, two ounces of potassium carbonate, and two ounces of borax per gallon. The addition of about one ounce of oleic acid and one ounce of sulfonated castor oil is useful in giving an oily solution. Proportions may have to be modified after trying the mixture out, in order to get the proper effect.

OILY PERMANENT WAVE: You recently suggested that we add about one ounce of oleic acid to our permanent wave solution to give it greater oiliness. We would deeply appreciate your advising us how this oleic acid is incorporated into the permanent wave solution. Brooklyn.

The oleic acid is simply added to the finished permanent wave solution and the whole mixture thoroughly stirred. The acid reacts with some of the ammonia and other alkalies in the solution to form a soluble soap which imparts cloudiness to the mixture. If separation takes place in the finished product, the mixture can be made homogeneous again by slight mixing.

SKIN CREAM: I have come into possession of an old formula containing almond oil, cocoa butter, lanolin and perfume which I have had made up. Within a few days the mixture becomes lumpy and is unpleasant to use although it is apparently very beneficial to the skin. Furthermore, the perfume used does not seem to cover the odor of cocoa butter very well. I should like to transform this formula to produce a good cream without the distinctive odor of cocoa butter. I have tried using beeswax but this does not improve the product. Buffalo.

Beeswax is not necessary in this mixture. The creaminess that you desire can be obtained by incorporating a certain amount of water in the mixture and thus transforming the anhydrous into a hydrous lanolin. You will have no trouble with the cocoa butter if you will use an odorless grade obtainable from suppliers advertising in this magazine.

LIQUID DENTIFRICE: We should like to ascertain some information regarding the basic formula for liquid dentifrice. We believe that the alcohol is used as an antiseptic, and does not affect the foaming or detergent properties of the synthetic detergent used. Although a good product can be manufactured without the use of alcohol, still we feel that the alcohol does make the product somewhat better. Are we correct as to this? Will you also inform us as to why the glycerine is present. Atlanta.

Alcohol in the concentration recommended for use in liquid dentifrices, is a quite poor antiseptic. Its major purpose is to keep the synthetic detergent and the essential oils in solution. Glycerin acts as a flavoring and thickening agent in combination with the gum. The essential oils are very good antiseptics and are used as much for this reason as for their flavor in dentifrice preparations.

STRONGER PERMANENT WAVE SOLUTION: In this windy state, hair is fine and dry, making it very difficult to produce a tight curl with ordinary solutions. We should appreciate information as to how our regular mixture can be made quicker and more effective in its action. Fargo.

The addition of a very small amount of a strong alkali is often useful in increasing the activity of a permanent wave solution. We therefore suggest that you try adding not more than one per cent. of sodium hydroxide or potassium hydroxide to your solution. Too much of these alkalies will damage the hair and excess must be carefully avoided.

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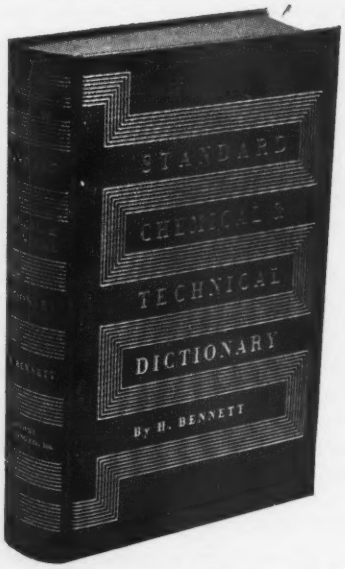

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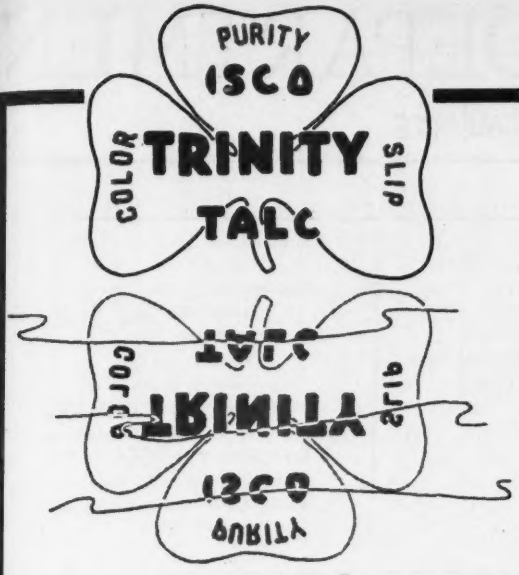

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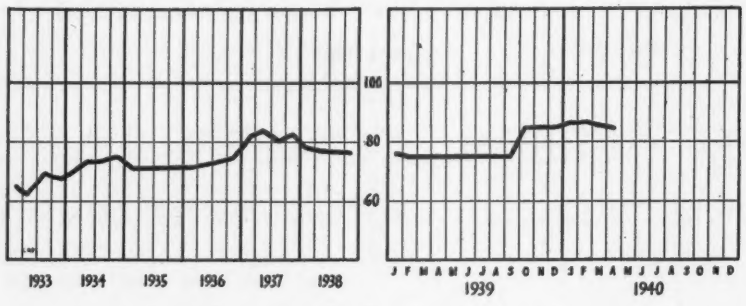
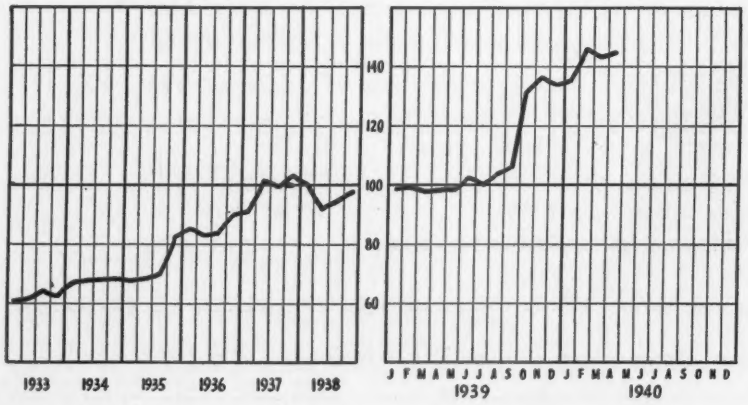
Cade oil 10c
Cananga oil, Native 10c
Rectified 30c
Cedar leaf oil 10c
Citronella oil, Java 2c
Clove oil 8c
Cumin oil $1.50
Ephedra vulgaris 1c
Eucalyptus leaves 2c
Henna leaves 3c
Lemon grass oil 10c
Mullein flowers 10c
Musk root 20c
Orange oil, W. Ind. 55c
Saffron Valencia $2.50
Sarsaparilla root, Mex. 1c
Spearmint oil 5c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



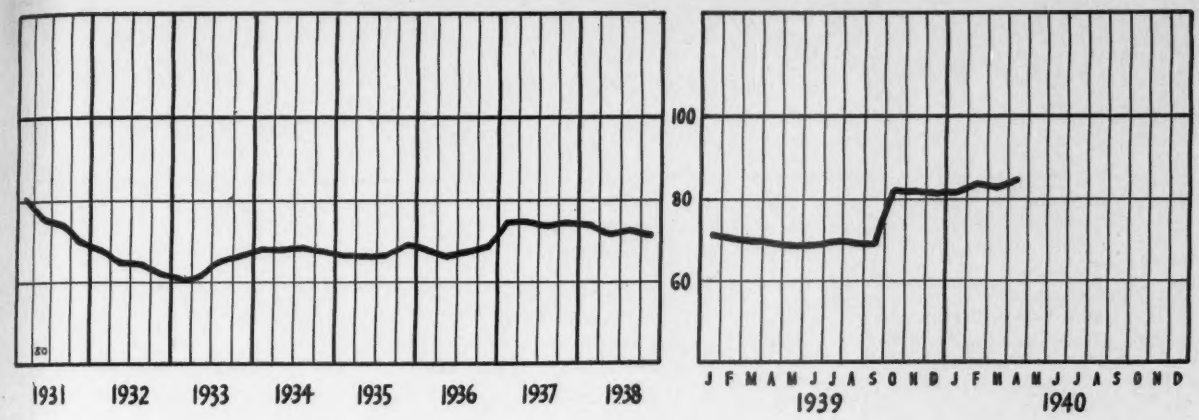
The cosmetic raw materials index declined from 85.8 to 84.8. Arabic was 8 cents lower at 25 cents; balsam Peru declined from $1.05 to 95 cents; balsam tolu rose from $1.00 to $1.10; menthol declined 15 cents to $3.50; stearic acid dropped from 14¾ to 14 cents. The decline in menthol was entirely due to spot competition.

15 Botanicals—Weighted Price Index. 1926 = 100.



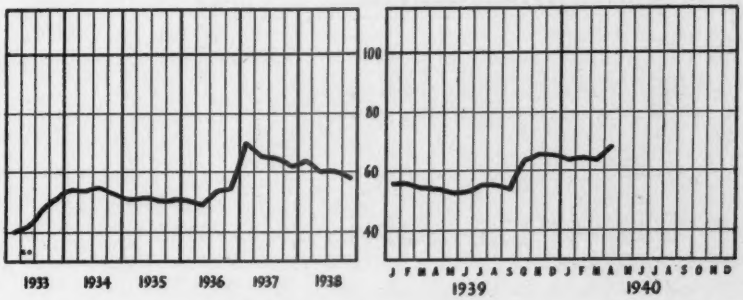
The botanicals index rose from 143.8 to 144.9. Balsam tolu was 10 cents higher at $1.10; buchu declined from 75 to 72 cents; cascara sagrada was one cent higher at 16 cents; ipecac increased from $1.20 to $1.25. This is the season during which stocks are inclined to be low. The market is not likely to show definite trends again until reports of new production are received.

50 Raw Materials—Weighted Price Index. 1926 = 100.



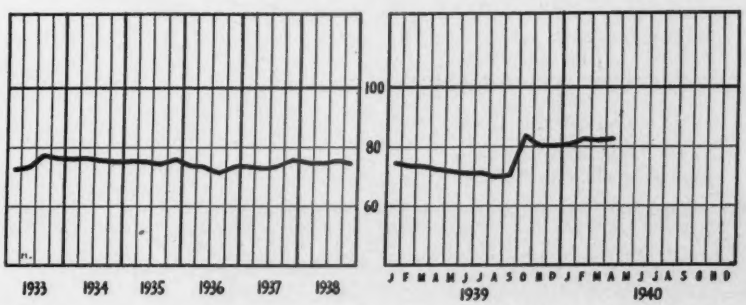
The fifty commodity index for April 1940 reached 84.8, compared with 82.9 for the preceding month. From a moderate volume of business reported for the previous period the market as a whole might now be said to have turned definitely quiet. Domestic raw materials continued firm in price, however. Reports from abroad indicate that certain foreign raw materials will be in short supply. Bergamot oil, Italian lemon and orange oils, lavender oil and spike oil, menthol, cod liver oil and mercury are cases in point.

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oil index jumped from 63.2 to 68.1 for April. Anise oil rose from 72 to 75 cents; bergamot was 75 cents higher at $5.00; bois de rose increased from $1.60 to $1.65; cananga was 10 cents lower at $1.60; citronella rose one cent to 41 cents; clove oil declined from $1.33 to $1.25; lemon oil was 75 cents higher at $3.75.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index increased from 82.0 to 82.4. Cream of tartar rose from 28¾ to 31¼ cents; menthol declined from $3.65 to $3.50; mercury was 50 cents higher at $183.00 a flask. Reports from London confirmed earlier indications that the United States was exporting mercury. Japanese menthol continued to be offered on spot at about $1.00 per pound below cost to replace.

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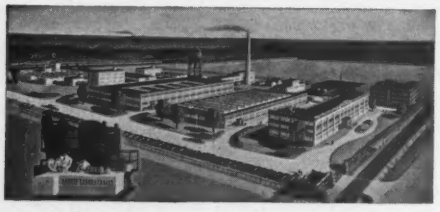

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MENTHOL

The spot market for Japanese menthol receded somewhat during the past month, the decline amounting to 15c per pound. The current price range for this variety is now from $3.50 to $3.60 per pound as to quantity. The purchase season is drawing to a close with the end of winter, and very little business was done during the current trading period. Competition was also stiffened by the increase in the number of holders of menthol, who were induced by low prices of Chinese goods to enter the market. These conditions, however, had little or no effect on the Japanese market. It was stated that, based on offers from Japan, it would cost $4.50 per pound to effect replacements. Not for many years has the spot market for Japanese natural menthol been $1.00 per pound below the replacement market.

Most interest in menthol continued to be centered in the Chinese material. The importance of this source has in no way been over estimated. Reliable sources have estimated total United States imports of Chinese menthol from the current crop at 4,000 cases. It is said that only about 250 cases remain unsold at the source. What serious competition the Chinese material is offering the Japanese goods can be appreciated from the fact that consumption in the United States, the world's largest consuming market for menthol, is approximately 4,000 cases per annum.

The spot market for Chinese menthol is $3.00 a pound or about 50c per pound below the price of natural menthol from Japan. The future of China as a source for natural menthol is therefore of considerable interest to manufacturing consumers here.

There is every possibility, however, that the next crop of Chinese peppermint will be considerably curtailed. The South China province of Kiangsi is the leading producer of peppermint oil. This territory is still in the hands of the Chinese, not as yet having been invaded by the Japanese. Those provinces, however, which are now under direct control of the Japanese are, by strict edict of the Japanese military authorities, prohibited from shipping rice to those provinces still independent. The Chinese Government has now stepped into the picture and is compelling all farmers to plant rice so as to relieve the extreme shortage in the interior. It is said that this will cut menthol production from the crop due in the late summer and fall of this year by at least 50 per cent.

Should this estimate prove accurate, China will still be an important producer of menthol with about 2,000 cases, practically all of which will be available for export from the 1940 crop.

Only as late as the first of this year did Japan become fully aware of the seriousness of Chinese competition in menthol. They have not as yet taken any retaliatory steps to counteract developments from this source. Prices in Japan have not been reduced to meet Chinese competition and, as a matter of fact, during the period of heavy shipments from Chinese producers the Japanese shipment market was advanced sharply. It is possible that the Japanese could, through their control of exports from the port of Shanghai, institute a duty which would seriously affect the Chinese menthol business.

VANILLA BEANS

Although there was no open price change in the spot market for vanilla beans during the past month, the underlying situation contained all the strength characteristic of this item for many months. Few Madagascar beans were offered for shipment, and this lead to the belief that unsold stocks in the primary market were moderate.

Importers have experienced exceptionally long shipment delays from Madagascar. Cargo vessels into France are at a premium and transshipment conditions are even more uncertain. The possibility of direct shipment from the Reunion Islands has been entirely discredited. Practically no boats are available direct to New York. Although cargoes are being accepted on through bills of lading, often as many as two, three or four transfers are affected in as many different ports before the final destination is reached. One case is cited where a shipment of vanilla beans from Madagascar, consigned to New York, actually reached a port as far off the track as Norway.

Under these conditions and also the uncertainty regarding French exchange, some dealers here are more anxious to receive supplies of Bourbon beans than to solicit new business.

It was reported that a very good demand for Bourbon beans prevailed during the first quarter of this year and that stocks available to cover manufacturing requirements for the balance of this year are none too adequate.

Most of the 1939-40 crop is already sold to dealers and manufacturing consumers. The 1940-41 crop of Madagascar beans is not too promising, according to preliminary reports. The flowering of the vines was below normal and recent storms in the Islands are said to have cut the possible yield still further. With almost ten months to go before another crop is available, and with the largest consuming season ahead, it is generally expected that Madagascar beans will remain very firm with the possibility that prices may again advance to the top levels reached during the early months of the war.

Spot prices on Bourbon vanilla beans during the current trading period ranged from $5.75 to $6.25 per pound.

Mexican cut business is also reported as good. There are not many good cuts in Mexico and the market there is tightening up. On spot prices ranged from $5.50 to $5.75 per pound. It is also stated that there will be few Mexican whole beans available before May-June. Quotations here are on the basis of from $7.00 to $7.50 per pound.

ALCOHOL

Ethyl alcohol production during February amounted to 20,381,272 proof gallons, the Bureau of Internal Revenue announced, compared with 14,650,062 gallons during February last year.

Ethyl production for the fiscal period July 1, 1939, to February 28, 1940, amounted to 160,156,609 gallons, as against 130,229,019 gallons for the similar period one year previous.

Stocks of ethyl in bonded warehouses at the close of February were 18,772,537 gallons, against 26,071,849 gallons one year previous.

Withdrawals of ethyl for denaturation in February totaled 14,696,811 gallons, against 11,198,307 a year ago. For the fiscal period 153,739,622 gallons against 119,130,360 the previous period.

A bill has been introduced in the Rhode Island General Assembly to license the manufacture and sale of alcohol for industrial purposes, "for mechanical, manufacturing, medicinal or chemical purposes."

This bill, says a bulletin issued by the Council of Industrial Alcohol Users, of which H. E. Howe is executive secretary, "emphasizes the fact that the Legislature of Rhode Island has not only failed to enact the scope and effect of the model clause adopted in other States on the subject of ethyl alcohol, for non beverage purposes, but has actually imposed a tax of 5c per gallon on 'ethyl alcohol to be used for non beverage purposes' (Chapter 167 of the General Laws of 1938)."

ROCHELLE SALT

During the current trade period prices for rochelle salt were advanced 1c per pound. Powdered material in barrels is now quoted at 23¼c per lb., and crystals in barrels at 24¼c per lb. Prices quoted above are f.o.b. New York. The price changes noted were necessitated by increased production costs.

SEIDLITZ MIXTURE

Higher production costs made it necessary for manufacturers of seidlitz mixture to advance quotations 1c per pound. The barrel price is now 19½c per lb. This quotation is on the basis of f.o.b. New York.

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COD LIVER OIL

Following the outbreak of hostilities in Europe, cod liver oil quotations advance sharply on the Bergen exchange and by the end of December prices for all grades were double those prevailing on September 1.

In September there was much speculative buying on American account but orders began to dwindle in October and November, as prices continued to advance and in December, according to reports, not a single new order was received from the United States.

As sales to the United States have declined, however, exporters have sought markets elsewhere, particularly in the United Kingdom, and export markets which British cod liver oil producers were serving prior to the outbreak of hostilities mainly Empire countries.

As a result of taking over these former markets of the United Kingdom, exports of cod liver oil from Norway have continued at high levels, despite lack of demand from the United States.

Exports of medicinal cod liver oil from Norway to all countries in December were recorded at 372,330 gallons as compared to 200,460 in December 1938. Shipments of medicinal grades to the United States in December were reported at 41,925 gallons as compared to 55,850 in December 1938.

As a result of the heavy demand during the closing months of the year, stocks were somewhat lower than normal. Medcinal grades were estimated at 750,000 gallons.

Since the outbreak of war in Europe, the possibility of producing increased quantities of medicinal and poultry grades of cod liver oil in Canada has been receiving attention.

Generally speaking, Canadian cod fishermen are not equipped to handle fresh livers and for years large quantities of livers have been discarded. As a result, the production of oils has been confined mainly to Halifax, Lockeport and Digby. The Province of Nova Scotia has produced a fair quantity of sun-rendered oils for technical purposes, but the quality has not been uniform and prices received have been low.

According to estimates, Canada has a potential annual capacity for producing 350,000 gallons of cod liver oils and 150,000 gallons of other liver oils from pollock, hake, cusk and haddock. Experimental work is now being carried on at Halifax by the Fisheries Research Board, which it is hoped will result in increasing the output of cod liver oils in the Dominion and add to the income of fishermen.

One of the main problems appears to be to equip fishermen with rendering equipment which can be installed on their vessels.

During recent years the total output of cod liver oils of all kinds in Canada has been in the neighborhood of 180,000 gallons per annum. Plans on foot at present to increase the national output would, therefore, make the country self-sufficient insofar as its requirements are concerned but would not leave a surplus for export.

In the past Canada has imported considerable quantities of cod liver oil from European producers and the United States.

Reports from Newfoundland indicate that Winter cod fishing has been handicapped by weather conditions, and as a result stocks of cod liver oil are reported to be light.

It is still too early to forecast activities during the coming fishing season, but with a sufficient margin of profit, it is believed, the output will increase considerably.

PEPPERMINT OIL

The spot market for peppermint oil was dull during the current trading period. No price changes were noted although schedules held firm at prevailing levels. Natural oil is offered here at from $2.75 to $3.00 per pound with the redistilled material quoted at from $3.00 to $3.30 per pound.

Exports of American peppermint oil were at record levels in 1939, reaching 396,000 pounds valued at close to $1,000,000, and accounted for 45 per cent. of the total amount produced during the period. In 1938 exports aggregated 372,000 pounds valued at $870,000. Shipments were especially heavy following the outbreak of hostilities in Europe.

American peppermint oil is produced mainly by the states of Michigan, which alone accounts for around 60 per cent. of the total output; Indiana with 25 per cent.; and Washington, Oregon, and Ohio, with relatively small amounts. The total output of these states in 1939 was around 890,000 pounds.

While the United States is one of the world's largest producers and exporters of peppermint oil, Russian peppermint oil is now being imported into the United States in substantial quantities. The first shipment of Russian peppermint oil to the United States is believed to have arrived in December, 1938, and consisted of 4,500 pounds. In 1939 receipts from that country amounted to 49,000 pounds valued at $71,000.

TARTARIC ACID

Tartaric acid was 2c per pound higher on spot. Crystal, granular or powdered material in barrels is now 37¾c per lb., kegs, net 100 lbs., 38¼c per lb. Prices quoted are f.o.b. New York, for prompt shipment, no contracts offered for the present.

EPHEDRA VULGARIS

There was a slight decline in the spot market price of ma huang during the current trading period. Prices now range from 12c to 13c per pound. The easier market can be attributed entirely to the small demand characteristic of this item at this time of year.

The primary market for ma huang in China is Kalgan, and Tientsin is the leading export market. The producing region is located almost entirely within the zone of Japanese occupation in inner Mongolia and the Province of Shansi.

Very little information regarding the 1939 crop is available in Tientsin. To an important extent Tientsin dealers have lost contact with their normal Chinese suppliers of ma huang in interior markets, because the sale of this and other interior Mongolian export commodities has been monopolized by Meng Chiang Trading Company, Ltd., which is a semi-official agency of the Japanese-controlled Meng Chiang Government..

Tientsin ma huang exporters are of the opinion that only a small crop of poor quality may be anticipated for the 1939-40 marketing year. Considerable quantities of the 1938 crop are said to be still available in Tientsin, but the alkaloidal content of most of these stocks is reported to be under one per cent., or about 30 to 40 per cent. less than that usually specified by American purchasers.

Accurate information relative to exports of ma huang from Tientsin is not available from official sources. Export returns certified by the American Consulate General at Tientsin indicate that a total of 560,517 pounds was shipped to the United States in 1939, against 963,095 during the preceding year.

EUCALYPTUS OIL

A very firm market prevails for eucalyptus oil both on spot and in the primary market. Current prices here range from 68c to 71c per pound and all indications point to the fact that the market will hold at these levels during the season of small consumer demand and that, with a resump consumer demand and that, with a resumption of buying for manufacturing requirements later this year, this further strengthening influence may push prices still higher.

While eucalyptus oil is produced all year round in Australia the Spring and Summer season, now drawing to a close, is the most important. The Fall season is now approaching there and reports indicate that production so far has been below normal, and further that drought and brush fires are now considerably hampering operations.

Large shipments to England have also strengthened the primary market. Australian shippers indicate that this product is likely to remain high and scarce for some time to come.

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